HOW TO JUDGE ARCHITECTURE

RUSSELL STURGIS

Hazel Hodges.

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HOW TO JUDGE ARCHITECTURE

ST. PETER'S CHURCH, ROME, FROM THE HILLS NORTHWEST OF THE CHURCH.

How to Judge Architecture

A POPULAR GUIDE TO THE APPRECIATION OF BUILDINGS

By
RUSSELL STURGIS, A. M., Ph. D.

Fellow of the American Institute of Architects, Member of The Architectural League of New York, The National Sculpture Society, The National Society of Mural Painters, etc., etc. Author of "Dictionary of Architecture and Building," "European Architecture," etc., etc.

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How to Judge Architecture

CHAPTER I

EARLY GREEK DESIGN

In trying to train the mind to judge of works of architecture, one can never be too patient. It is very easy to hinder one's growth in knowledge by being too ready to decide. The student of art who is much under the influence of one teacher, one writer, or one body of fellow-students, is hampered by that influence just so far as it is exclusive. And most teachers, most writers, most groups or classes of students are exclusive, admiring one set of principles or the practice of one epoch, to the partial exclusion of others.

The reader must feel assured that there are no authorities at all in the matter of architectural appreciation: and that the only opinions, or impressions, or compara-

tive appreciations that are worth anything to him are those which he will form gradually for himself. He will form them slowly, if he be wise: indeed, if he have the gift of artistic appreciation at all, he will soon learn to form them slowly. He will, moreover, hold them lightly even when formed; remembering that in a subject on which opinions differ so very widely at any one time, and have differed so much more widely if one epoch be compared with another, there can be no such thing as a final judgment.

The object of this book is to help the reader to acquire, little by little, such an independent knowledge of the essential characteristics of good buildings, and also such a sense of the possible differences of opinion concerning inessentials, that he will always enjoy the sight, the memory, or the study of a noble structure without undue anxiety as to whether he is right or wrong. Rightness is relative: to have a trained observation, knowledge of principles, and a sound judgment as to proprieties

of construction and design is to be able to form your opinions for yourself; and to understand that you come nearer, month by month, to a really complete knowledge of the subject, seeing clearly what is good and the causes of its goodness, and also the not-so-good which is there, inevitably there, as a part of the goodness itself.

It will be well, therefore, to take for our first study some buildings of that class about which there is the smallest difference of opinion among modern lovers of art, namely, the early Greek temples. There is no serious dispute as to the standing of the Greek architecture previous to the year 300 B. C., as the most perfect thing that decorative art[1] has produced. It is extremely simple: a fact which makes it the more fit for our present purpose: but this simplicity is to be taken as not having led to bareness, lack of incident, lack of charm:

[1] Decorative Art: Fine art which is applied to the beautifying of that which has primarily a useful purpose. Architecture is the most complex of the decorative arts, and for this reason, and because it is also carried out on a large scale with great possibilities of noble effects, the most important of the decorative arts.

it has merely served to give the Greek artist such an easy control over the different details and their organization into a complete whole, that the admiration of all subsequent ages has been given to his productions.

It must be noted, however, that nothing of this complete beauty is now to be seen above ground. Plate I shows the famous temple at Pæstum on the west coast of Campania, southeast of Naples: the temple called that of Poseidon, to which god (called by the Romans, Neptune) the ancient town which stood on this site was dedicated. This is the most nearly well preserved of the Doric[1] temples, with the single exception of the small building in Athens called the Theseion, or Theseum, (see Plate III), and it is larger and more interesting than that. Plate II gives the Parthenon at Athens from the northwest

[1] Doric: Belonging to the Dorians, a Greek people. The term, Doric style, was first applied to the very few Roman buildings and parts of buildings of which the basement story of the Theatre of Marcellus and that of the Colosseum at Rome, are good instances. When the Grecian buildings of Athens, Girgenti and Pæstum were studied, the term was extended to them; and these give us what we call Grecian-Doric.

HEXASTYLE DORIC TEMPLE, PAESTUM, SOUTHERN ITALY, CALLED "TEMPLE OF NEPTUNE."

PLATE I.

PARTHENON, ATHENS, FROM THE NORTHWEST.

PARTHENON, ATHENS, FROM THE NORTHEAST.

PLATE II.

and from the northeast. This building by common agreement of modern students was the most perfect in design and the most highly elaborated in detail of all the Doric temples of early time. The Parthenon as we see it now in its decay, dominating the town of Athens from the top of its rock or looked at close at hand, lighted by the Grecian sun or by the moon for those who are romantically inclined, is unquestionably a most picturesque and charming ruin; it is imposing in its mass, interesting still in its details, and invested, of course, with an immeasurably great tradition, historical and poetic. That fact must not be forgotten for a moment: but, on the other hand, it must not be forgotten that this admiration, this enthusiasm, is not given to the work of art. It is not at all to produce such a ruin as we now see that the Grecian artist thought and toiled. Admire the ruin to your heart's content: but be careful that you do not allow too much of this romantic association to enter into your love of the artistic entity, of the lost Parthenon, which we have to

create out of the air, as it were. And beware of the admiration of ruins as you would of the "tone" given to a picture by time: it is not that which the artist proposed to himself or even thought of, and it is the artist's purpose that you must ask for, always. That is the first thing. Until you are sure you know that purpose, fully, it will not do to find fault with the work of art, or even to praise it too unreservedly.

On the other hand, it is extremely important to consider the probable ancient surroundings of the building in question. The upper figure of Plate III may show, not only the interesting building itself from a good point of view and with its peculiarities strongly accentuated (as is pointed out below), but also how, except for its sculpture and coloring, the temple must have been seen by the Athenians in the days of Conon. The modern houses are very like what the ancient houses must have been, for, although the ancient houses had even less door and window-opening upon the street and more upon a court or yard, yet

we may imagine ourselves in such a yard of antiquity, and the red-tiled roofs, the home-made chimney, the rough and unkempt aspect of the whole may be assumed to stand very well for the humbler quarters of Athens in antiquity. This temple also is a ruin : but the fact that, as seen in Plate III, there are still visible the sculptures of the metopes,[1] and the fact that the roof of the pteroma[2] is still in place, so that there is no sunshine coming down behind the columns where sunshine was never meant to be—these conditions go far to give us a peep at the building as it stood in those great days. No other photograph can give a better idea of how the columns are set closer near the corner ; nor a better idea of

[1] Metope : The word means originally the space between two triglyphs (see definition of entablature) ; but is generally applied in English writing to the slab or block of stone which fills this space in the Doric temples known to us. It is evident that the outer surface of this block was sometimes painted, and it is known that it was sometimes carved in low relief, as at Selinuntum, of which temple sculptured slabs are preserved in the museum at Palermo ; while those of the Theseion and the Parthenon were in very high relief.

[2] Pteroma : The side or flank, hence, in modern usage, the space covered by the roof of a portico, and therefore including the columns and intercolumniations, although in general usage it applies only to the passage between the columns and the wall behind.

the reasons for this peculiarity; for the sky is seen between the columns at the right hand; and the dark wall of the naos[1] in the same relative position on the left hand, and the chief cause for the smaller intercolumniation at the corners is obvious enough, as shown below in connection with the model Plate IV.

Look back at Plate I, and Plate III, upper figure, and note that these buildings have six columns on the front instead of eight and, therefore, according to the general proportions of Greek temples, should have a greater height relatively to width than the Parthenon, Plate II. Note, farther, that the columns are very much higher and more slender in the octastyle[2] Parthenon than in the Italian hexastyle[3] building, and the relative height of the entablature[4]

[1] Naos: Called also cella: the enclosed part of a Greek temple, that which has solid walls and may be divided into two or three rooms: also sometimes the larger of these subdivisions as distinguished from the Opisthodomos, or Treasury.

[2] Octastyle: Having eight columns, when said of a portico; having eight columns in front, when said of a temple or similar building.

[3] Hexastyle: Having six columns; as in the case of octastyle for eight.

[4] Entablature: In a piece of classic architecture, the three horizontal members above the columns when these three are

greater, or as one to two and a half in Pæstum, one to three in Athens. The Doric Order[1] is capable of just about as much diversity in relative heights and other dimensions as is shown here.

The comparatively short and thick columns of the Italian temple are characteristic of an earlier and less developed style than that denoted by the higher and more

taken together as forming one part of the order. The entablature consists of architrave or epistyle, immediately above the columns, the frieze, and the cornice, each of which may have several decorative subdivisions. Thus in the Ionic Order the epistyle may be divided horizontally into three surfaces projecting slightly more and more from the bottom upward. The frieze in the Doric style (Roman or Greek) is divided by triglyphs into metopes; and in the other orders has often sculptured ornament. The varieties of form in the cornice are very considerable. A triglyph is one of those blocks cut with vertical channels, which seem to rest upon the epistyle and to support the cornice. The metopes are the spaces between; and also the non-structural slabs or blocks which fill those spaces. In a very few instances the entablature is irregular in some respect; thus the portico of Caryatides, Pl. VI, may be said to have no frieze, but epistyle and cornice only. In Roman work the whole entablature is occasionally arched up, bent to a curve, as in a temple at Baalbec, and as in a palace at Spalato.

[1] Doric Order: In Greek and Roman architecture, and in those neo-classic styles founded upon antiquity, the Order is the unit of design and consists of one complete column (shaft and capital, with base, if any, and pedestal, if any) and so much of the entablature as may be sufficient to show its whole character. The Grecian Doric Order alluded to in the text, is peculiar in the shape and number of the channels of the shaft, in the echinos-shaped bell of the capital, in the square and unadorned abacus, in having no base, in having the frieze broken up into short lengths by the triglyphs, and in the minor details depending upon the above.

slender columns of the Parthenon. In like manner the comparatively great thickness of the superstructure in the Pæstum temple, giving a very broad architrave,[1] and a still broader frieze[2] is also suggestive of an earlier date. Now it is agreed that the more lofty and slender proportions of the Order of the Parthenon must have given to the original building a charm beyond that given by the stumpy proportions of the Pæstum temple: but it is also undeniable that many lovers of architecture, of this as of other epochs and styles, love especially the early work, that which is commonly known as archaic. It is exactly like the great enthusiasm excited in many students of Italian art by the earliest paintings, those of the *primitifs:* in each case the very single-minded and diligent work of the early men has a charm peculiarly its own.

Although the Parthenon is, as mentioned above, a ruin and nothing else, there are still to be found in the shattered stones of

[1] Architrave: [2] Frieze: for these terms see footnote Entablature above.

that ruin a certain part of that theoretical beauty, that imagined glory of the destroyed work of art, which we are gradually building up in our thoughts. Thus it is in the existing ruins that there have been discovered those curious curves where straight lines had been supposed to exist. If you stand at one end of the stylobate [1] and look along it towards the other end, you will see that it curves upward in the middle with a decided convex sweep. (See Plate III.) If you raise yourself on a scaffolding and look along the underside of the architrave you will find that that also rises in a curve, not exactly parallel or concentric to that of the stylobate, but nearly so. Furthermore you will notice, if you walk about the temple and examine it closely, that the two outermost columns of the front are much nearer together than the others, as noted above in Plate III : or that, in other words, the three columns which form the corner are grouped

[1] Stylobate : The flat, continuous surface upon which the columns stand, as in a colonnade. When the whole flat surface forming the floor of the passageway (see Pteroma) is considered, the word stereobate is employed.

much more closely than are the others. Furthermore, it has been discovered by minute measurements that these columns slope inward a very little. Of course, it has always been known that the very visible diminution of the shaft in thickness from the bottom to the top is not according to straight lines (that is to say, that the shafts are not conical) but is according to a very slow and hardly perceptible curve which we call the entasis. Great folios of carefully drawn plates have been devoted to the exact curvature of the entasis and to the more recently discovered irregularities: and a minute series of measurements have been made, by which the whole amount of the irregularity in any one case is now easily ascertainable. This is one of the many elements out of which we have to make up our general appreciation of the building, our appreciation of the existence and the character of these slopes, curves, risings, sinkings, slopings: all of them, it is clear, planned in the most careful and elaborate way, and as the result of many previous experiments.

Their object is, of course, to add to the charm of the building, to give it in one case the effect of being very broad in the base and therefore very secure and permanent—in another case, to prevent any possible appearance of sagging or depression in the middle of the long horizontal lines; in another case still, to substitute the subtile grace of a slight and almost imperceptible curve for the harshness of a straight line. Still another thing is traceable in these ruins: the unceasing care with which the work was done, the way in which the separate drums or solid blocks, of which the shafts of the columns are made up, were ground together, one upon another, until they fitted with but the slightest visible or tangible separation. The channeling or grooving of the shafts was evidently done after the drums had been put into place, and it is highly probable that the bells[1] of the capitals were also finished, or received their final

[1] Bell: That part of the capital of a column which is between the necking below and the abacus above. The term is applied also to the imagined general form of the same member apart from the ornamentation; thus the bell of a Corinthian capital is to be traced beneath the acanthus leaves.

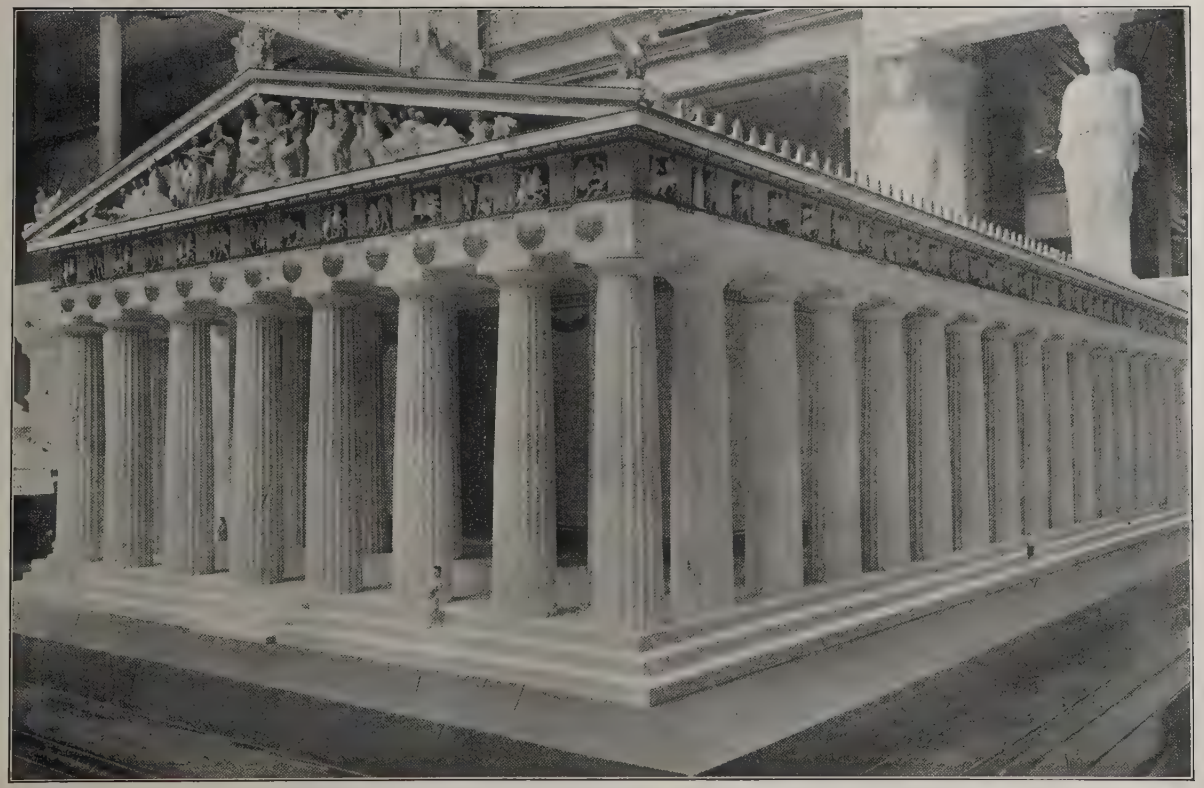
very delicate curvature, after the blocks out of which they had been cut had been set, and indeed after the superincumbent block, the abacus, had been lowered upon each one of them.

Another feature in this remarkable design is to be traced in the ruins, and was much more plainly discoverable at an earlier, though still recorded and well-known, date: namely, the original painted adornment of the building, in strong primary colors. In the temples built of soft and rough stone, like that in Plate I, there is known to have been a thin coat of fine plastering spread over the whole surface, and the final delicacy of curve and sharpness of edge must have been wrought in that plaster even more accurately than in the stone beneath. But in the Parthenon, built entirely of fine-grained and hard marble, no such coating was necessary, and the paint was applied directly to the crystalline surface itself. This painting covered very large parts of the exterior, nor is it probable that any single foot of the

THESEUM (THESEION) ATHENS.

CURVATURE OF STYLOBATE OF PARTHENON

PLATE III.



RESTORED MODEL OF THE PARTHENON, METROPOLITAN MUSEUM OF ART, NEW YORK.

PLATE IV.

marble was left in its original whiteness. Where the solid coating of red or blue paint was not applied, the marble seems to have been tinted a dull yellow, as by the application of wax to the surface, which wax, if melted on with hot irons, would act as a preservative for the marble. It appears then that all modern dreams about the whiteness and purity and abstract loveliness of the Grecian temples are mistaken. Browning's Artemis says that, always excepting Hera, she is the equal of any goddess of them all —

" . . . . . . surpassed
By none whose temples whiten this the world."

The Artemis of any Greek poet would have used a different phrase: to her, the temples erected to the gods of Olympus would not have seemed white objects—they would have been to her the properly sacrificial and devotional embodiment of all that was splendid and gorgeous in the arts of men at that time: sculptured marble and wrought metal indeed, but also color and

gold freely and even lavishly applied. Plate IV is a photograph of the restored model of the Parthenon which belongs to the Metropolitan Museum of Art in New York, the restoration of which, and the whole work, is due to Charles Chipiez, a well-known and very competent archæologist in the direction of classical architecture. But this restoration is extremely reserved and quiet; it assumes almost nothing; it is restrained quite beyond what is to be expected of a modern enthusiast in Greek art. If, instead of this, we were to study the careful and conscientious drawings published by that French student who has made a special study of the buildings in Epidauros (Alphonse de Frasse) or in Olympia (Victor Laloux) we should find the decoration by means of painting and by the application of golden shields or other members in gilt metal, assumed as very much more elaborate and rich. Thus the restored façade of the temple of Asclepios at Epidauros and that of the temple of Zeus at Olympia are shown as having been

painted in the most elaborate way, with figure subjects of conventionalized form and distribution on all the larger flat surfaces, and patterns of leafage and scroll-work on the small ones. It is known that very rich mosaic floors existed in many of these cases, and known also that the ceilings, such as those above the open galleries (pteroma) behind the great colonnades, were adorned very richly, sometimes with painted and gilded terra cotta.

There is still to be considered the sculptured ornament, painted, indeed, in vivid colors, but also planned with care, and executed with vast knowledge, minute skill, and what seems to us faultless good taste. In the Doric temples there was no leaf-sculpture, no scroll-work, no carved ornaments of any sort: we shall find a different condition of things in the Ionic style, but even in the elaborate and very costly Parthenon there were only the human and animal forms, expressed in statues and reliefs made as perfect as was possible to the artist of the time. Some temples

had none of this: others had the metopes of the frieze (see footnote, Entablature) carved with high reliefs: others had reliefs in the great triangular panel of the pediment:[1] others again had this panel filled with statues, standing and seated, forming a group, and expressing some legend of Greek historical and religious life. Finally, there are instances of long unbroken bands of sculpture in very low relief. The Parthenon had all of these: a horizontal band along the top of each wall of the naos filled with bas-reliefs; high reliefs in the metopes, statues in both pediments.

If, then, our opinion of ancient Greek architecture is to be formed, and a relative judgment of any two fine specimens of it is to be reached, we have to study with some care what is known about their appearance and character when intact. What statues did they have? What high reliefs in square panels, or bas-reliefs in long and narrow

[1] Pediment: The triangular wall at the end of the low pitched roof, in a Greek or Roman building. The sunken panel alone, above the horizontal cornice and beneath the raking cornice, is called the Tympanum, or, in Greek temples, often the Aetos (ἀετός) or Eagle.

strips? Of what value were these sculptures to the general effect of the structure? What seem to have been the proportions of the building? If we can call up an image of it before the mind, is this an image of perfect proportion, or is it clear that greater height or other change in dimension would have been an advantage? It is true that we generally accept Greek buildings of the best time as faultless: but it is also true that there were great differences among them. The hexastyle temple is necessarily more high and more narrow than the octastyle building. If we consider that the temple with six columns at each end has only thirteen on each side (that is, eleven without counting the corner columns which form part of the two fronts) while the wider Parthenon has seventeen columns on each side, we find that the comparative height of the temple of Poseidon at Pæstum, or of Zeus at Olympia, or of Athena at Sunion, is very much greater when seen from one corner, in perspective, than that of the Athens temple. Suppose

that we trace from Plate IV so much of the colonnade as will leave out two of the end columns and four of those on the flank, and then put a corresponding pediment and entablature, which proportion shall we prefer? Which building is nearer to perfection? The Parthenon, as the very flower and glory of Greece? If so, why was the hexastyle form so very much more common? There is only one other octastyle Doric temple known: and, if it be said as an explanation, that *of course* the heights of column and entablature would be varied for the change from the 8x17 peristyle to the 6x13 type, the question still remains for us —was it practicable to make an octastyle temple as perfect in proportion as were numerous hexastyle examples, large and small, scattered over Greece, Southern Italy and Sicily? These doubts are suggested in order that the reader may see in this commencement of his studies what kind of unsettled and never to be settled questions will come before him at every step of his inquiry. He will be equally uncertain

whether he is to prefer the east end of Reims cathedral or that of Bourges, or that of Paris. As with the important Greek temples, so the Gothic cathedrals just named are the very flower of their epoch and represent in the highest perfection known to us their respective styles. So much the student will be able to discover without too great a mental effort: and once sure of this he will understand that no further mental effort in this direction is even desirable, and that comparison among works of very high excellence can never cease—can never be brought to an end by any authority or any outside decision whatsoever, and that here the student's own preferences must be perforce his only guide.

There is still one point of view from which the Greek temples must be regarded. It is to many persons the most important consideration of all. Those who are realists in architecture are always inclined to favor the utilitarian plan and the logical structure and to hold these as of even greater value than the abstract proportion or the

beauty of detail. On the other hand, writers like Ruskin never suggest the importance of the destination of the edifice, nor its merit as a piece of intelligent building: nor do the students of proportion, as in Neo-classic[1] buildings, think much of this matter. In the case of the Greek temples this practical consideration can be stated in a very few words. No large roofed hall was ever desired; no interior effect, as of a great vaulted room, was thought of; no room for a congregation or an audience within the solid walls was ever proposed. The naos of the temple served only to house the great image of the Divinity with other minor statues of the same or of kindred significance together with the gifts presented to the shrine. The people gathered in front of the great portico; public sacrifices were performed there; the temple itself, like the choir[2] of a

[1] Neo-classic: Studied from Greco-Roman monuments; said of a work of art or of a style. The neo-classic architecture of Europe begins about 1420 in Italy. (See Risorgimento and Renaissance.)

[2] Choir: Properly, the space in a church reserved for the clergy and their assistants, especially the singers: hence, by extension,

Christian church long afterwards, was for the priests alone. Moreover, the buildings of different character left us by the Greeks, even in ruins, are so very few that we are unable to establish with certainty their character; and those which, like the famous Meeting-hall (Telesterion) at Eleusis, must have accommodated a number of persons seated to listen to the words of speakers, were obviously of extreme simplicity—involving no new principles of plan or of design. Next, as to the construction: that as the photographs show, was of the simplest possible character. Uprights of stone carried horizontal beams of stone, and these again cross-beams to span the width of the portico, which cross-beams might be of stone, or of wood encased perhaps with terra cotta slabs. As for the interior of the naos, in the larger temples it was divided into a wider middle hall and

I—The enclosure itself which is sometimes very massive and elaborate, a high stone wall sculptured or otherwise richly adorned, and

II—That part of a cruciform church which contains this enclosure, namely, the fourth arm of the cross, that one which extends generally towards the east from the meeting of the nave and transept.

two narrower ones, like the nave and aisles of Christian churches: and all roofed with timber, in simple framing, which carried a roofing of tile: but whether the roof was always complete and solid, or whether, as some persons think, a part of this was often omitted so as to allow the light of day to enter from above, is uncertain.

It appears then that, as suggested in the first page of this chapter, the requirements and the structure of the Grecian religious building were so very simple that no long examination into the matter is needed to show the connection between the plan and the exterior effect, or between the structure and the exterior effect. We have no Greek interiors to study and the exteriors at once tell us how the whole structure was brought into being, and also that it could not fail to serve its daily uses in a very perfect manner.

CHAPTER II

LATER GREEK AND ROMAN DESIGN

In chapter one there was discussion of the simplest Greek architecture—that which we call Doric—which reached its culminating point about 450 B. C. Considering now, very briefly, the later and more elaborate Greek buildings we find that they were more generally of the Ionic[1] style, that the most important of them were built along the Asiatic coast by the Greek colonists there, and finally, that not one of the larger monuments remains in any such condition that it can be seen even as an attractive ruin. The only important Ionic building which we can find impressive, as it stands, is the Erectheion at Athens, and this, though a very small building, is admitted to contain the most exquisite

[1] Ionic: Belonging to the Ionian Greeks; Ionic style, that characterized by capitals adorned with volutes, shafts much more slender than in the Doric style and decorated by flutes instead of channels; these flutes having a nearly semi-circular section and being separated by narrow fillets or flat bands instead of meeting at the sharp arris.

details of the Ionic style which are known to us. Plate V gives two views of the Erectheion in its present condition, and Plate VI gives the small portico of caryatides on the south flank of the same building. The views given here show the curious and entirely unexampled relation of these different parts to one another. The full significance of this combination of small apartments is not understood.

As a general thing the Ionic temples were not different in purpose from the Doric temples; they have therefore the same plan and the same simple structure; but they have a much more elaborate decorative treatment. Thus, we find here architectural sculpture, properly so called, introduced into the building. Plate VII gives a number of separate details of Ionic buildings, and it will be readily seen that here an influence was at work far different from that which ordained the absolutely unmodified square-edged and formal Doric building depending upon proportion and upon brilliant color; and that here con-

ERECHTHEUM (ERECHTHEION) ATHENS, FROM THE EAST.

ERECHTHEUM, ATHENS, FROM THE NORTH, SHOWING NORTH PORTICC
PLATE V.

ERECHTHEUM, PORTICO OF CARYATIDES. FROM S. E.
PLATE VI.

ventionalized leafage, independently designed curvatures and broken lines, and the play of surface given by slight reliefs alternating continually with smooth flat planes, are all introduced. If, farther, we look back to Plate VI and note the treatment of that splendid "Portico of the Maidens," we shall see what Greek thought was capable of in the way of architectural sculpture. Now there is no difference of opinion about the beauty of the simple patterns, the anthemions,[1] the egg-and-dart[2] mouldings, and the like; but the very greatest difference of opinion exists with regard to the essential propriety of human figures used as architectural members of such great importance as these, and especially when used as supports for a superincum-

[1] Anthemion: Any floral ornament arranged like a bouquet; an abstract decoration of sprigs or branches rising from a common point and separating into a broader head. The Greek anthemion, often called palmette, or honeysuckle ornament, seems to be composed of slender leaves; whereas the anthemion in Persian and other Asiatic art is often a group of flowers, perhaps alternating with leaves.

[2] Egg-and-Dart: An ornament consisting of an alternation of flattened balls or bosses with sharp pointed members like arrow heads. The minor details vary much; but it is usual for the flattened eggs to be surrounded by a deep cutting or a raised rim, and for the arrow points to be alternated with these.

bent weight. The author of this volume admires this portico as, on the whole, the finest thing left us by Greek architectural art, combining as it does the exquisite design and faultless modelling of each separate figure, the successful combining into a group of the four maidens of the front, or of the whole six, with their superincumbent weight of marble, and the exquisite management of the whole structure so that it shall seem light and yet solid, fanciful and yet dignified, graceful and yet enduringly noble. Viollet-le-Duc has pointed out ("Entretiens," vol. I., p. 293) how successfully the figures are posed and grouped to express their constructional function. There are excellent judges who think differently and who would fain ignore the Pandrosion,[1] as it is sometimes called, or relegate it to the position of a mistake made by that race of artists who were of all races the least likely to make mistakes. In this

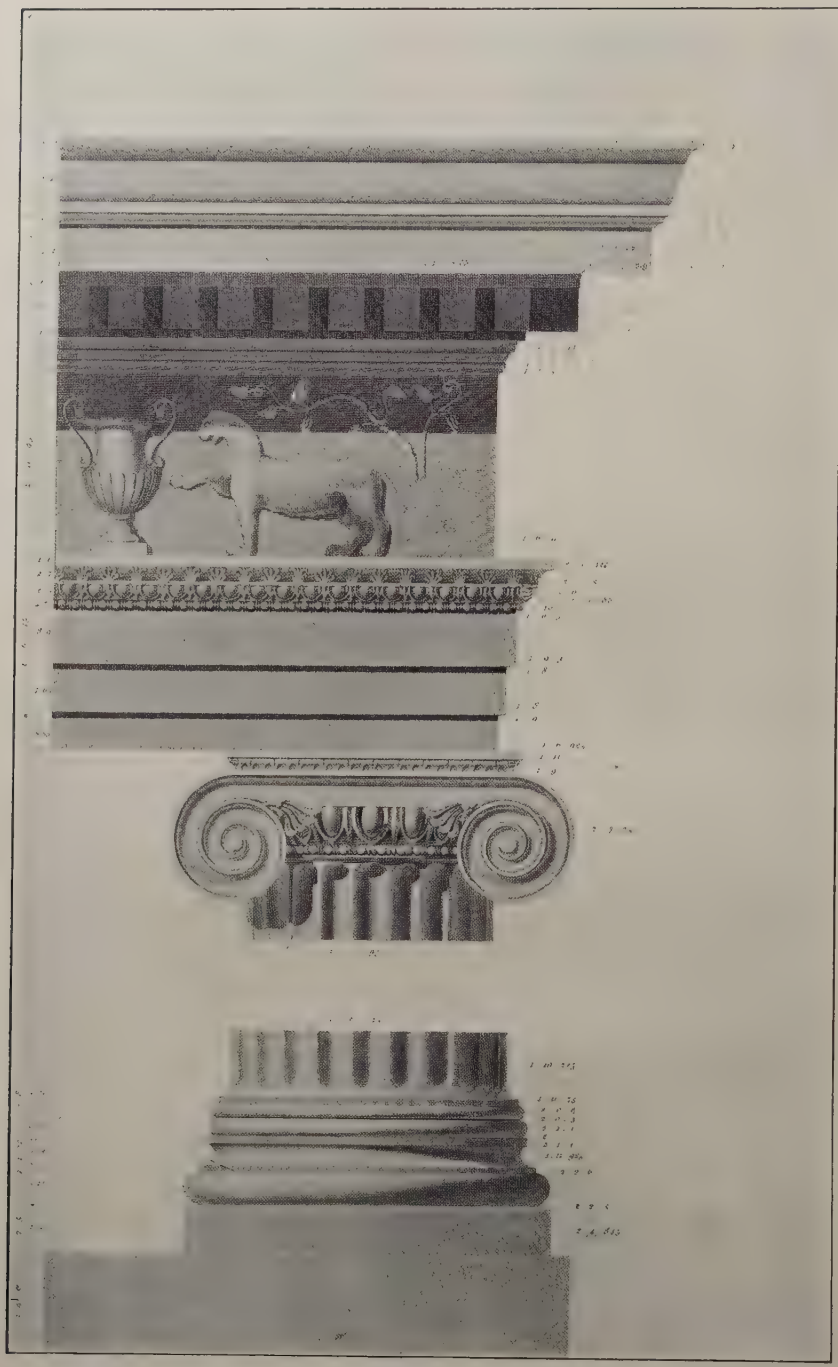
[1] Pandrosion: The shrine temple or enclosure of the nymph Pandrosos, a daughter of Cecrops. It is known that this was situated close to the temple of Erectheus, and therefore the portico of Caryatides on the south flank of the Erectheion has been called by that name.

ERECHTHEUM, HEAD OF DOORWAY UNDER NORTH PORTICO.

DETAILS OF ENTABLATURE, IONIC STYLE, ACROPOLIS, ATHENS.

CORNER CAPITAL, IONIC STYLE, FOUND ON ACROPOLIS, ATHENS.

PLATE VII.



TEMPLE OF ATHENE POLIAS, PRIENE, IN ASIA MINOR, SOUTH OF EPHESUS.

(From "Antiquities of Ionia," published by the Dilettanti Society.)

PLATE VIII.

connection it may be noted that the buildings of the Ionic style offer other and very curious exceptions to the more usual treatment of sculpture when applied to buildings. Thus in the Erectheion itself, the principal frieze was of dark gray marble in smooth slabs, upon which were fixed figures in white marble in vigorous action, the scale small, and the whole composition much more nearly pictorial than anything in the Parthenon. Again, in the balustrade built about the little temple of Victory on the edge of the cliff at the west of the Acropolis, reliefs of moderate projection are treated with singular vivacity : draped goddesses in active and easily understood movement.

There is also in Greek architecture the beginning of the Corinthian[1] style, of which the best example known to moderns is the totally ruined Tholos[2] near Epi-

[1] Corinthian : Derived from Corinth; Corinthian Order, the latest to be introduced of the three Grecian Orders and the one taken over most readily by the Romans. The details are very like those of the Ionic Order except the capital which is the first instance in antiquity of a generally concave bell invested thickly with leafage.

[2] Tholos : A circular building; used in archæological writing to describe one whose purpose is not certainly known, as

dauros in the Morea, and the most familiar, that little monument in Athens, called the Choragic[1] Monument of Lysicrates: but for this style we must refer to the Roman buildings in which it reached its highest development.

When we come to consider more especially the traditional repute of Grecian architecture, and the influence which it has had in shaping the opinions of what we call the taste of sixty generations throughout all the European lands, we are brought at once to the work of the Roman imperial times. All the nationalities—all the peoples—which take their recent and existing social form and opinions in art and literature from the same common source, the all-embracing empire of Rome, have taken up Greek art as they have taken up Greek literature, as their chief and original guide to thought. Indeed it has been shown, and

the Tholos of Atreus at Mykenai, generally thought to be a tomb; that near Epidauros thought by some to be the spring-house, or the sacred well of Asklepios.

[1] Choragic: Having to do with the Choragos, the manager of the sacred chorus in Athens. This was an honorary post involving much expense and labor to the occupant.

is accepted as true, that the chief mission of the great Roman empire was in preserving Hellenic thought in art and literature for the future. It is because of this, as has been truly said, that the works of Homer and Æschylus and of the Greek sculptors are plants growing in our own garden. They might have been, and but for the Roman empire they would be, as foreign to the modern world as are the thought and literature of Persia and India. It is therefore necessary to consider what Greek architecture was to the five or six centuries which followed its greatest epoch, and again what it was to the five or six centuries which followed the Middle Ages, in Europe. From 450 B. C. to 400 A. D., and again from 1400 A. D. to recent times, Greek thought in these matters of fine art was the central thing, the spring of life. To the peoples of antiquity Greek architecture was a guide and inspiration, even under the much altered conditions of a foreign and irresistible rule: it was constantly and uniformly the model. To the peoples who have built and

designed since the fourteenth century, Greek art has been of weight generally as acting through the Roman styles of design, for it was not until the beginning of the nineteenth century that the actual buildings of the Greek peoples in Greece, in Asia Minor, in Italy, and in Sicily, came to be known at all: but it was the Greek part in Roman imperial art that interested those Moderns. At the time of the first explorations and discoveries of Stuart, Revett, Penrose, Cockerell, Pennethorne, Texier, Renan, and the other explorers of the years from 1760 to 1850, the Greek buildings were in ruins. Not one single roof remained in place. Not one single building was so far preserved that the question could be definitely answered whether the temples had openings in the roofs for light in all or in any cases: so that the hypæthral[1] theory remains a theory only, and is apparently incapable of

[1] Hypæthral: Open to the sky; Hypæthral opening, a space uncovered, part of a Greek temple, perhaps entirely unroofed, perhaps only having a roof partly opened in sky-lights. Hypæthral Theory: any one of several opinions as to the possible lighting of the interior of a temple from above, either through the roof, or by the partial omission of a roof so as to form a central open court.

verification. On the other hand, the details, not only the mouldings and flutings and channelings, but also the carving in conventionalized leafage, were plainly to be seen and were capable of exciting the most enthusiastic interest. Thus Plate VIII shows the order and some other details of the Temple of Athena Polias at Priene in Asia Minor : the drawings having been made about 1766 under the direction of Dr. Richard Chandler and the architect Nicolas Revett. The general plan remained doubtful, but as it was evident that the buildings had received the most careful thought, with a view to their artistic character, and as, in the eighteenth and early nineteenth centuries, proportion in the larger distributions of the building was esteemed the most important element of architectural greatness, it was taken for granted that the Greek buildings would be found to have also such excellence of proportion ; and it was believed that this particular beauty could be enjoyed and judged by those who were patient and shrewd enough to com-

bine the shattered ruins and deduce from them the original form of the buildings which they represent. What one temple would not give, another supplied. What one temple had lost, another had preserved. The height of the columns could be ascertained and the diameters of their shafts at top and at bottom: the distance apart of these columns could be ascertained: the shapes of the capitals were there to be noted: the entablature could be restored by a mental process and drawn out with almost perfect certainty. In this way the Greek temples were put into shape for the modern student. No such student had ever seen one except in the state of apparently hopeless ruin: but no such student could fail to grasp the evident significance of the original building when presented to him as a work of pure form, white and colorless, simple in construction, refined in detail beyond anything that later times had ever achieved, presumably faultless in proportion, and invested with minute and delicate decoration in conventionalized leaf

form and the like. We have then to keep in mind two different ways of judging of the Greek buildings; first, the truly historical and also truly critical way, in which we take them as buildings once very real and really put to use, made rich by splendid color and abounding variety of detail, much of this detail being in paint or in gilding alone without form to represent it; and the other way, the modern traditional way, by means of which a small body of writers and lecturers swayed architectural opinion for a century and a half, and until the accurate examination and close study, given to the subject in the second half of the nineteenth century, had produced its effect.

In the later chapters of this little book there will be found frequent reference to this professional or technical view of pure Greek architecture. Still, what has been thought about it since its discovery in the eighteenth century, is of less importance to our inquiry than the similar assumptions with regard to the architecture of Imperial

Rome; for that architecture influenced the peoples of Europe at all times during the Middle Ages, and more especially at the important periods of revival or of change in the fifth, the eleventh, and the fifteenth centuries.

The early architecture of Rome, that is of the city and its neighborhood, is not under consideration; it is very little known even to modern archæologists, and it was not known at all to the people of the Risorgimento[1] or their successors, upon whose work the modern traditions and feeling about architecture have been based. The buildings which directly influenced the world of the Middle Ages, and then that later world of the fifteenth century, the

[1] Risorgimento: In Italian, a new arising; this is the common term for the revival of classical learning in the fourteenth and fifteenth centuries, coupled with the advance in expressional painting and sculpture of the same epoch, and developing later in the revival of classical design in architecture. The term Rinascimento (rebirth) is used in the same sense, but is apparently rather a reflection of the prevailing French word Renaissance. It would be well if English writers would employ the term Risorgimento for the Italian movement of the fourteenth and fifteenth centuries, and Renaissance for the French movement of the sixteenth century with its equivalents in northern Europe. As for Spain, in which the classical revival followed very closely upon that of Italy, the term Renacimiento seems to correspond very closely to the Italian Risorgimento and the French Renaissance.

time of Italian imitation of antiquity, were those of the early Emperors. There was, as has been discovered within the last quarter of a century, a special art introduced in the reign of Augustus, a beautiful art made up of sculpture not exclusively Greek in character; and, in its architectural form, of an enlarged and more decorative handling of the Greek system of design. In both of these innovations some loss in refinement comes with the gain in splendor and in utility: but we can see this Augustan architecture to have been a splendid decorative art. It is also true that somewhat more of it than we now see remained in place, and nearly complete, in the fifteenth century. The great buildings which partly remain to us from the Imperial epoch are generally later than the time of Augustus. The famous Pantheon (see Plate IX), as we now have it, with its huge rotunda, dates from the time of Hadrian (117–138 A. D.): the magnificent Forum of Trajan with its accessories, a group of buildings inconceivably vast and splendid, was completed

during the same administration of Hadrian. The best preserved Roman memorial arch, which is also fortunately very rich in sculpture, that of Benevento in South Italy, was also built after Trajan's death and in the time of Hadrian: the best preserved buildings of Palmyra and of the North-African cities are of the time of the Antonines, those of Heliopolis (Baalbec) of the same epoch and later. The temples on the old Forum—the Forum Romanum as distinguished from the later or imperial Fora—were restored and altered many times before the final collapse of the imperial power in Rome: the temple of Castor, apparently under Tiberius (14–37 A. D.), the temple of Saturn, with the State treasury in its basement, perhaps not later than the time of Augustus (30 B. C. to 14 A. D.), the temple of Vespasian, much rebuilt, under Severus and Caracalla, at the beginning of the third century, A. D. The buildings named as being in Rome itself, together with the Temple of Antoninus Pius, that of Mars the Avenger in the Forum of

RESTORED MODEL OF PANTHEON, METROPOLITAN MUSEUM OF ART, NEW YORK.

THE PANTHEON, ROME, AS NOW EXISTING.

PLATE IX

RUINS OF TEMPLE OF CASTOR AND POLLUX, ROME.

RUINS OF TEMPLE OF MARS ULTOR, ROME.

PLATE X.

Augustus, the enclosing wall of the Forum of Nerva, and other fragments now wholly destroyed, were the pieces of architectural art which most especially influenced the studies of the men of the fifteenth and sixteenth centuries. Plate X gives what now remains of the Temple of Castor, and also what remains of the Temple of Mars; but as late as the sixteenth century there was much more to be seen and studied about these ruins. The building behind the Temple of Castor in the Forum, now entirely stripped of its architectural decorations, retained its interior order of marble columns until the sixteenth century, and this building also was of great importance to the earlier restorers of antique art: it is thought by modern archæologists to have been the Temple of Augustus, which is known to have existed in this neighborhood.

The buildings named above were generally columnar in character. The memorial arch and the Pantheon are the only two of them which were certainly vaulted struc-

tures. Now, the memorial arch required only one or three simple barrel vaults, and the example of the Etruscans must have made such work as that familiar to the people of Rome, but the Pantheon is a very different thing. This, as rebuilt under Hadrian, with the rotunda which we know, must have been one of the earliest Roman buildings in solid mortar-masonry. Its walls are very thick, faced on both sides with brick, but built actually of small stones laid in strong mortar, and it is roofed with extremely massive vaulting of the same materials. Other such buildings of which large parts exist are, in the city of Rome itself, the great Halls of the Thermæ of Caracalla (probably built about 205–10 A. D.); those of the Thermæ of Diocletian, built a century later, and that of the basilica of Maxentius and Constantine on the north side of the Forum Romanum, built between 312 and about 330 A. D. In these buildings a vaulting as massive as that of the Pantheon but of wholly different shape was used. The Pantheon, a circular building, is roofed by

a circular cupola[1] which is kept in place by a ponderous superstructure carried up from the haunches of the vault, so that the thrust of the cupola could not, however great it might be, affect the stability of the structure. In the great halls of the Thermæ and the basilica above named, the conditions are very different, for the groined-vaulting[2] of these halls would, if built under ordinary conditions, exert a formidable pressure outward upon all its points of support. In these Roman examples, however, there were two influences at work to save the buildings from possible injury : the skillful disposition of walls and piers to take up or absorb the thrust from each point of support, and the fact that these vaults were built in such a fashion, with horizontal beds of stone laid in strong cement mortar, that there could not be much thrust when once the mortar was dry and the vault consolidated. The

[1] Cupola: A cup-shaped roof, either built of solid masonry and so really a vault, or a mere decorative shell.

[2] Groin-vaulting: Vaulting in which one barrel vault meets and intersects another, so that the projecting solid angles, called groins, are formed by the meeting of the hollow rounded surfaces.

vault could not thrust outward without breaking: and it was too homogeneous to break. Buildings whose actual construction was carried out in this fashion exist throughout those Mediterranean lands which once were included in the great empire. This system of building gave the world those great permanent interiors which were the first in the world's history to be of architectural importance. Egyptians, Babylonians, Assyrians, Greeks, both those of Greece and those of the Colonies—none of these great building nations had ever conceived of interiors prepared and designed for their own sake, and as the chief part of the building. The Assyrian kings in their palaces came nearer to understanding the possible effectiveness of the interior: but even they were satisfied with long and narrow halls shaped like what we call corridors. It was left for the Romans at once to develop their system of vaulting and at the same time to improve the construction of their roofs of wood and metal, so that halls fifty feet, sixty feet, even eighty feet wide, could be built with

roofs of effective and beautiful form high above the floor. Under these conditions the most splendid possible interior effects were producible. Such vast columned interiors as that of the Ulpian basilica and that of the Septa Julia must have given an effect of stately grace absolutely unknown to the modern world; the true evolution of Greek art in one direction was assuredly to be found there. On the other hand the imperial dwellings on the Palatine Hill in Rome with their numerous vaulted halls, the temples of pure Roman design, like that of Venus and that of the City of Rome, built back to back, near the Colosseum, and the great halls of the basilicas and baths, as above suggested, were capable of being adorned in a permanent and strictly architectural way as none of the buildings of earlier races had been. The basilica of Maxentius had its middle division, its nave,[1] about eighty-

[1] Nave: In a building with three or more parallel subdivisions, forming together one great hall, like a large Gothic church, that part which rises highest, and has generally windows above the roofs of the lower aisles.

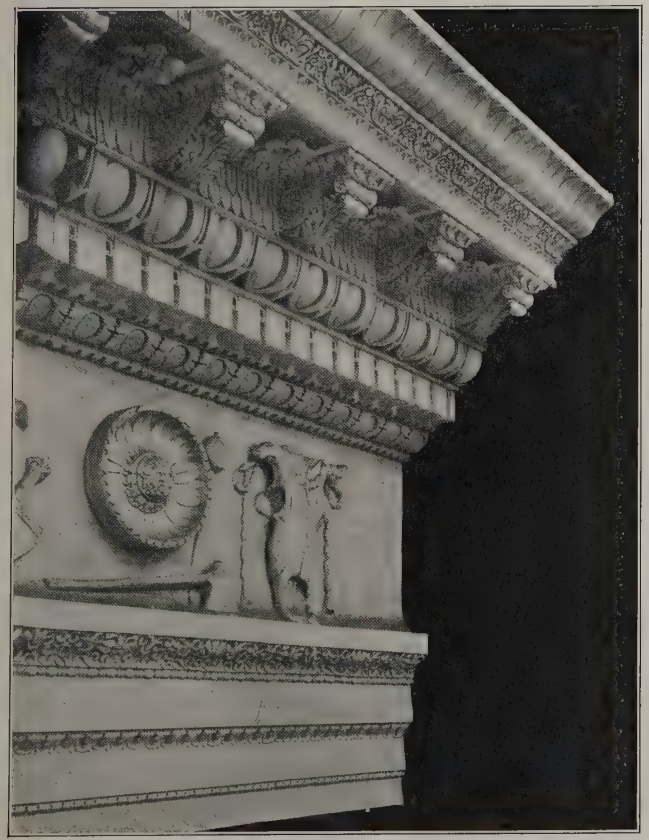
three feet wide and roofed with a groined vault, although the span of that vault is less than this, about seventy-eight feet, because carried by immense columns which stand free of the wall on either side. This great hall was one hundred and twenty-five feet high to the top of the vault: and it was flanked on either side by an aisle[1] made up of three rooms, each about fifty-three feet square, opening into the central hall; and the barrel-vaults[2] even of these six minor divisions rose eighty feet from the pavement. (See Plate XI.) This building dates from the declining days of the Empire and of classical civilization, when sculpture had already become a feeble and barbarous thing, without character, and when what we consider the Byzantine feeling in matters of decoration had already obtained the mastery throughout the greater part of the Roman world. The strong hold which the system of building had upon the engineers of the empire can be judged from this fact.

[1] Aisle: See the definition of nave.

[2] Barrel-vault: A vault whose cross-section is everywhere the same as if part of a tube.

BASILICA OF MAXENTIUS AND CONSTANTINE, ROME.

PLATE XI.



SCULPTURED DETAILS OF TEMPLE OF VESPASIAN, ROME; RESTORED MODEL, METROPOLITAN MUSEUM OF ART NEW YORK.

ARCH OF TRAJAN, AT BENEVENTO, SOUTHERN ITALY

That which we are undertaking here is not a history of architecture, but in a sense a history of the modern way of judging of architecture. What then is the origin of those traditions and accepted doctrines upon which are based all our ways of criticising a building? This and the previous chapter are a partial answer to that question. The contribution of the Roman Imperial world to this tradition has been, by much, the greatest of all. It is upon the Roman practice that all subsequent European systems of decorative building have been founded, except the lightest and slightest—the wooden-framed houses of mediæval Europe and those of modern America, and their like. Apart from fortification, and from structures built by engineers without artistic intention, there is not a single form of building in masonry since the fifth century which has not been developed from the practice of the Imperial builders. Now it appears that those builders not only built in two different ways, but that they undertook the curious twofold

task of constructing their buildings with massive walls and vaults of mortar-masonry (thereby abandoning wholly the example of the Greeks who never used mortar at all in the buildings we admire, and who had no arches nor windows nor interior designing of any sort in our modern sense), and of decorating these buildings within and without, by means of a borrowed Greek system of the Orders, which had nothing whatever to do with the actual structure. They allowed themselves to take certain liberties with the Greek Orders. They raised the column on a pedestal, they made the shaft of costly and beautiful material, of porphyry or granite or pavonazzetto marble or cipollino; and consequently, because the material was precious and also hard, they did not try to adorn the shaft with channels or flutes. They made the capital of bronze, cast hollow and gilded richly, and put such capitals around the top of the shaft as a mere ornamental jacket, concealing the actual supporting member. They built the

horizontal architrave of wedge-shaped stones, making of each span between two columns a flat arch instead of a simple lintel of one block, and they protected this built-up lintel by a second arch above, a discharging arch to throw the weight upon the columns and relieve the centre of the lintel. Finally, they increased the amount of carved ornament upon all parts which seemed capable of receiving it. This they did, not only by making the sculpture of any one moulding very elaborate and rich, but also by increasing the number of sculptured mouldings. Thus in Plate XII, there is given, that it may be compared with the carved work of Athens (see Plate VII) a part of the entablature of the Temple of Vespasian in the Roman Forum. And the differences between Greek and Roman practice in this respect are not limited to the amount of sculpture in a given moulding or a given monument: they affect also the very nature of the ornament itself. Plate XII gives one side of the imperial arch at Benevento; a monument intended pri-

marily as a pedestal for a great group of bronze figures; the reliefs on the arch showing Trajan in war and in peace, sacrificing, conquering Dacians and Armenians. It is evident that no such use of human subject in sculpture had ever suggested itself to the Greek builders of the temples. It is historical: and it is also strictly decorative, and subordinate to the architectural design. For any similar conception arising among Greek peoples we moderns must go to buildings which were utterly unknown to the European artists who built up the neoclassic system, the men of the fifteenth and subsequent centuries. Such a building as the famous tomb of Mausolus at Halicarnassos, now Budroun, on the coast of Asia Minor, may indeed have influenced greatly the Roman architects of the time of Hadrian. That Emperor, who was a great traveller, may have seen the Mausoleum; his favorite architect may have been a student of it from childhood; but any ideas which the men who brought classic art back to modern Europe drew from that famous

structure came to them through the Roman designers.

However much they might abandon the Greek use, that is to say, the rational and inevitable use of the Orders, the Roman architects still employed those Orders constantly, and in a way more splendid than anything the Greeks had attempted. The Eastern notion of adorning a town by a broad central avenue lined with colonnades two or three deep, an idea developing itself rapidly in the cities of Syria, obtained throughout the empire during its peaceful days. It appears that in the fourth century it was feasible to go afoot from almost any point in the central regions of Rome, north, south, east or west, for a mile or two, while keeping always under cover ; except indeed as one crossed a street or avenue, though even at such crossings there was often the Tetrapylon, the four-fronted gateway, to carry the shelter on from portico to portico. This system of colonnaded porticoes, roofed always and enclosed very often with a solid wall on one side at least, was developed in

many forms. A temple would stand in a great court surrounded by just such colonnades. A forum of a Roman town like an agora of a Greek town would be faced by colonnades on every side. For the purpose of display, great squares were opened up essentially for the purpose of surrounding them by just such porticoes. Plate XIII gives views of the ruins at Jerash in Syria, east of the Jordan, the remains of the city of Gerasa, whose glory seems to have been of the time of the Antonine emperors. The lower figure gives the great triple archway south of the ancient walls of Gerasa: the upper figure a view of the great oval or semi-oval space, whose shape is not determined, and which we may hardly call either a *forum* or an *agora*. Plate XIV gives a detail of the *Forum Transitorium* of Nerva, Emperor from A. D. 96 to 98. The whole enclosure was a massive wall about ninety feet high and built of huge blocks of limestone, the decorative treatment and the sculptures being on the inside and facing upon the Temple of Minerva. The figure

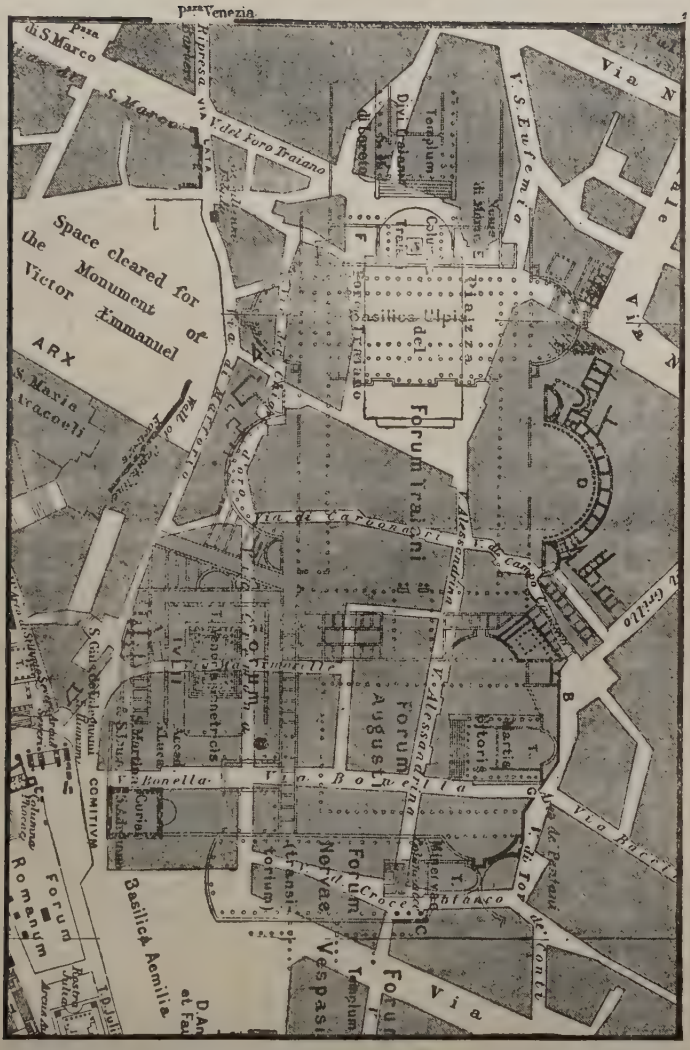
JERASH, SYRIA; THE ANCIENT GERASA, GENERAL VIEW.

PLATE XIII.

ANCIENT CITY GATE OF GERASA.

PART OF THE BOUNDING WALL OF THE FORUM OF NERVA (FORUM TRANSITORIUM) ROME; THE MODERN LEVEL AT LEAST TWENTY FEET ABOVE ANCIENT PAVEMENT.

PLATE XIV.



Plan of that part of Rome which contains the Imperial Fora. Shaded parts are those covered by modern buildings.

gives a trustworthy plan of the buildings called by the name of Trajan and built during his reign and that of his successor, Hadrian. The modern buildings and streets are shown, and it is seen from these how the actual plan can only be inferred by that which has been discovered by digging here and there, or by investigations in cellars of modern structures. Still the general type of the old design can be seized: a great open square, 270 by 370 feet and this surrounded on three sides by a covered portico fifty feet wide with two rows of great columns in addition to the wall outside, which itself was pierced by many openings filled with columns *in antis*.[1] Across one end of this great square, stretched the Ulpian basilica, as long as the whole square was wide, including its portico, and half as wide as that: in other words, the open interior of the basilica was about 180 by nearly 400 feet and the roof of all this

[1] In antis: Latin, between the antæ. The anta is the end of a wall treated so as to be an almost independent member, like a square pillar in which the wall ends. The portico made by two of these set opposite one another and with columns between, is said to have two columns or four columns in antis.

was carried by two rows of columns on every side in addition to the outer wall which again was in parts opened up into a colonnade. The basilica may or may not have been covered in the central part: various conjectural restorations have been made, but nothing is absolutely certain. It is evident that it was very open to persons coming and going—that they were allowed to cross it almost as freely as one crosses through a great cathedral in France or in Italy, going in at the north door and out at the south door, almost at pleasure. Beyond it, was a court where stood the Column of Trajan, still erect, though without its accompanying minor buildings, and beyond that again and across what may have been an entirely open street was the temple erected to the deified Trajan, after his death, by the Senate, which temple was surrounded by another portico and covered nearly as much ground as the great forum itself. In this way a continuous space of nearly a thousand feet in length by a width of from three hundred to four hundred feet

was either covered by the roofs of porticoes or open to the sky within belts of these same porticoes. To walk once around the whole, following the outside ambulatory of the porticoes would be to walk the best half of a mile, and this one could do without ever passing out under the open sky, except perhaps in crossing to the temple enclosure. Nor does this account of the whole composition include in the least the great semicircular buildings projecting from the forum and from the basilica on the northeast and southwest. Now as all of this vast congeries of splendid buildings must be assumed to have been entirely of trabeated[1] structure, a mere series of columns and horizontal lintels resting upon them with superstructure, it is evident that

[1] Trabeated: Built with beams or lintels (said of a building, or part of a building) or characterized by the use of beams and lintels to the exclusion of arches (said of a building or a style). Thus the Pantheon at Rome though entirely vaulted in its main structure has a trabeated portico, and the screens in front of the great niches within (see Pl. IX) are of trabeated construction as far as they go—that is they consist of an entablature supported on columns. The term "arcuated" is used in direct contradistinction from trabeated and denotes that which is constructed on the principle of the arch or that which is characterized by the use.

the Greek spirit and the Greek taste controlled all parts of this vast composition.

Mile upon mile of colonnades, as Greek in taste as the later age would allow, enclosed and led up to superb interiors of a dignity and magnificence immeasurably beyond anything conceived by the Greeks. This is the Roman signet, as it were, the stamp which the great Empire put upon the world.

CHAPTER III

EARLY MEDIÆVAL DESIGN

THE unequalled grandeur of the Empire as it endured from 50 B. C. to about 350 A. D. is most strongly felt when we think of the Pax Romana—that Roman peace which forbade armed conflicts in the Mediterranean lands in which war had been the rule. To this Peace an altar was erected in Rome by the orders of Augustus. From the Caspian Sea to the Atlantic, and from the shores of the Baltic to the Atlas Mountains a consecutive and orderly government was maintained, fully as beneficent as has ever prevailed in any single nation of the earth, except in very recent years in Western Europe, and immeasurably superior to what has existed in those same regions, taken together during the past dozen centuries. One curiously complete difference existed, however, between the west and east halves

of the Empire. In the West, Roman domination brought with it a civilization so superior to that known in those lands before the conquest that Gaul and Iberian must have looked upon the Italian domination as synonymous with all that makes for enlightenment and intellectual advance as well as good order. On the other hand, the peoples of the Balkan Peninsula, Asia Minor, and Syria, must have felt that in yielding to the Italian power they were yielding to a force, which, however beneficial politically, represented a lower intellectual civilization than their own. The business of the Empire was, as we now see it, to develop and hand on to the future, Hellenic civilization. The first dawn of this extended Hellenism must have been to the West a clear intellectual gain: but in the East it was not noticeable. The holders of Greek traditions may have enjoyed the apparent willingness of the conquerors to defer to the mental and moral superiority of the conquered: but they could not have bowed to Rome as the one civilizer known,

as did the people of the west of Europe. And so it was that the people of the East took one view of the architectural problem when the Imperial system had fallen, while the Gallo-Romans, Britons and Spaniards took quite another view, which they impressed at once upon their Frankish, Visigothic and Saxon conquerors. The Roman builders left two great traditions, (1) the adornment of the building, the open square, the city with combinations of Greek-seeming colonnades, (see p. 58); and (2) the interior, arranged for interior effect, vaulted when practicable, flat roofed with massive trabeated construction when the light and open character of the building, as of a portico, invited a Greek manner of design, (see p. 53). The first-named of these traditions was destined not to be very boldly or very generally followed until after the Middle Ages. (See Chapters VI, VII, VIII.) The other prevailed at once: the needs of the Christian church were served by it; and the Westerners followed it in one way, the Easterners in a very different way. The people of

Italy, Gaul, Spain, Germany and Britain developed Romanesque[1] architecture, the people of the Eastern Empire—which held together for centuries the Greeks, Albanians, Macedonians, Syrians, Phrygians—created Byzantine[2] architecture. The Romanesque is not ill-named: it is indeed quasi-Roman, Roman as near as the poor and scattered communities could make it. The Byzantine is a mixture of Persian and Roman habits and rules, and is the very finest thing that ever came out of such an almost conscious mixing of diverse elements. It could not have been created but for the Roman Peace, which still held sway over the Eastern seas and lands after Italy

[1] Romanesque: Literally, semi-Roman, or would-be Roman; applied to any or all styles of art, especially architecture, which were developed directly from the Roman imperial art of the years before 450. In ordinary usage, the basilica style of Italy and even the similar art in the northwest of Europe are called Latin, and the style built up in eastern Europe with Constantinople for its centre, is called Byzantine; but Romanesque may be considered a term covering all these, and as including, too, all European art until the complete establishment of the Gothic art in the northwest, and in the East until the establishment of Saracenic or Mohammedan art about the ninth century, A. D.

[2] Byzantine: The art of the Eastern Empire centred in Byzantium or Constantinople. Modern developments of this art, without radical changes, exist in Moldavia and the Caucasian regions, and its influence is seen in the native architecture of Russia.

and the West had gone back to pristine barbarism: but under that domination it spread all over the Balkan Peninsula with Greece, over southern and western Italy and Sicily, Syria, Egypt, and the coast regions of Asia Minor.

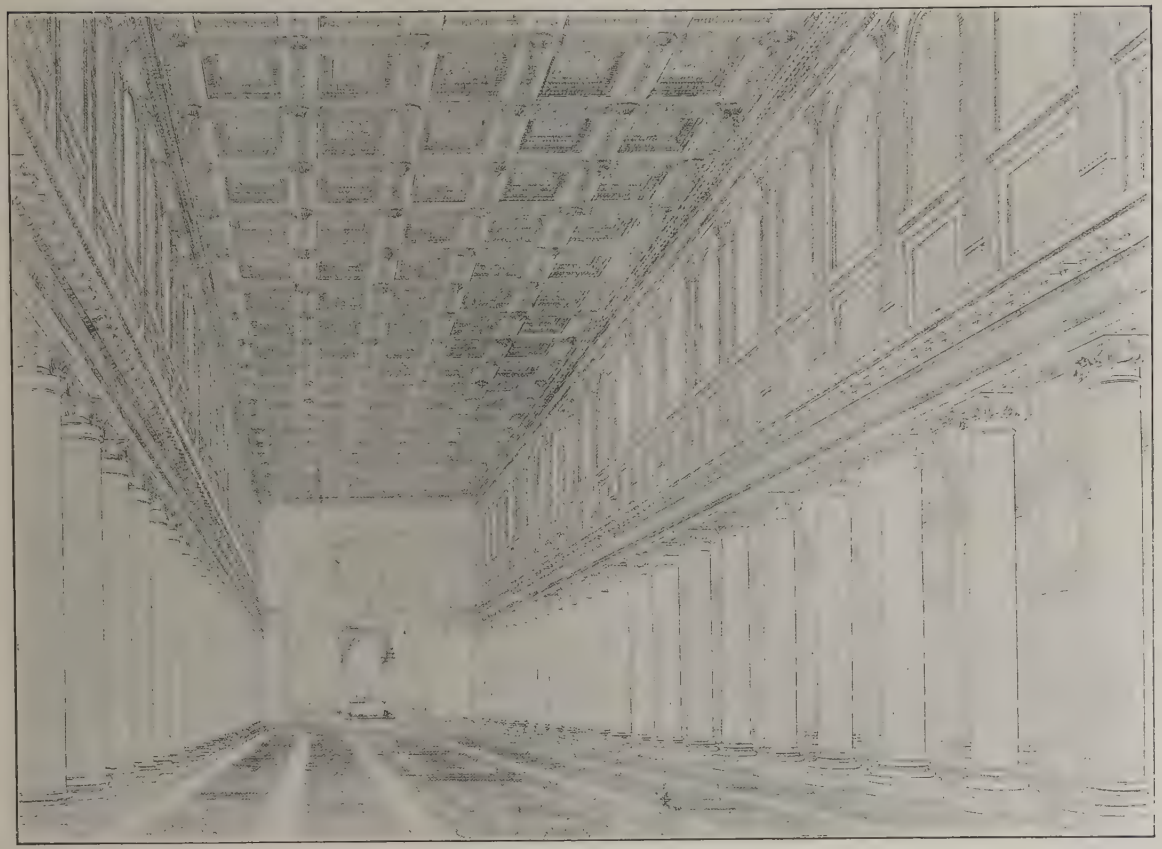
Now it so happens that both of these great styles were superseded in their turn by other and very vigorous styles: by the Gothic in Europe and the Saracen or Mohammedan in Asia: and therefore it is that we have only churches, and not many of them, from which to judge Romanesque and Byzantine architecture. At least, however, these are erect and complete, not too much altered, roofed and floored as of old, with window-openings and doorways, porches and apses in working order. It is with the present chapter, then, that we begin to study buildings which we can see complete. And, after all, the church was much the most important structure of the time. Here and there a ruined palace, like Barbarossa's at Gelnhausen and the Hebdomon at Constantinople, makes us regret

what we have lost: but these also prove the truth of our assumption that it was the Church Building in which was determined the growth of architecture. Indeed that was to be the march of events until the fifteenth century: only then did the residence and the house of state come to the front.

The earliest western churches are the Basilicas, buildings of a form and style derived partly from the Roman civic basilica,[1] and partly from the well known peristyle or garden-like court of the large Roman house, with its pillars supporting the roofs of open galleries on three or four sides. The buildings of this character built or adapted for Christian uses were themselves basilicas—Christian basilicas or post-classic basilicas. They were flat roofed,

[1] Basilica: Originally, under the Roman imperial system, a building for varied business, public and private, having often a courtroom connected with the open hall: hence, under the earlier Christian control, a church built like most of the earlier basilicas, that is to say, with a nave and two or more aisles. A special feature of the Christian basilicas was the transept, a high and open hall built across the upper end of the nave and aisles: and beyond this (that is, farther from the entrance doorways) was often the apse, a generally semicircular projection.

without vaulting, imitating in this the majority of the older, classical basilicas. A good example of these buildings is seen in the still existing church in Rome, the Liberian basilica called commonly St. Mary the Greater (S. Maria Maggiore). Plate XV gives the interior of this building as drawn by Gutensohn for the great work of Bunsen: the late alteration which spoils the uniformity of the colonnade on either side being ignored. The columns of this colonnade are entirely antique, excepting repairs and slight alterations. It is probable that in this as well as in many similar structures the ancient pillars of a great outdoor portico, such as are described in Chapter II, were taken bodily for the interior of the church. The clergy of the fifth century cared much less for the beauty and completeness of the city outside than for, each, his own special dominion—the church which he controlled; and there was no municipality to prevent such spoliation. The plan of the church is easy to understand from the plate itself; apart from the numer-



BASILICA OF SANTA MARIA MAGGIORE, ROME.

(From Gutensohn, Die Basiliken des Christlichen Roms.)

PLATE XV.

CHURCH OF SAN MINIATO, NEAR FLORENCE, TUSCANY.

PLATE XVI.

ous outside chapels and sacristies of later time, a simple parallelogram about two hundred and fifty feet long and fifty feet wide, which width is divided into a broad nave and two much narrower aisles. And therefore a single glance reveals the whole structural character and the whole architectural design of the church. Three parallel halls divided by two rows of columns; the central hall (the nave) rising much higher than the roofs on either side, and showing, therefore, a broad space of wall towards the interior; and, towards the exterior, a wall less high by the vertical height of the aisle-roof. This great wall surface will be certain to have windows in it, because that is the obvious way of lighting the nave: then the roofs either finished within by a flat ceiling, as in the present instance, or showing the timbers of the roof, with only such decoration as color and a little very simple carving may supply. This type of building endured through the whole epoch of what we call the Middle Ages, and has never been wholly aban-

doned since. Our larger churches are close studies of it.

Substitute a series of equal arches for the straight horizontal lintels which stretch from column to column and carry the clearstory[1] wall, and you have the very root of the Western Romanesque, and of its higher development in the Gothic style. (See Chapter IV.) Basilicas contemporaneous, or nearly so, with S. Maria Maggiore are often so built, with round arches carried from column to column; and if we take a church of a much later period of central Italy we find often the basilica type in its simplicity—developed and made more complex only in detail. Plate XVI gives the interior of the church of San Miniato al Monte outside the walls of Florence. The noticeable peculiarity in this is the change of the arcade, supporting the clearstory wall, from a single uniform line of equal columns supporting equal arches, to a more organized structure of

[1] Clearstory: That part of the nave which rises above the aisle roofs, and has windows to light the interior.

two great piers with two responds[1] and in each of the three spaces so left, two columns with three round arches. This system is found in churches as early as Santa Agnese outside the walls of Rome, and was never abandoned. To satisfy in some way the instinctive desire of the builders for a more complex plan than the perfectly unbroken nave and aisles, there was introduced the wall supported on a great round arch, which, as seen in Plate XVI, spans the nave at two points in its length and may be thought to stiffen the otherwise long and unbuttressed clearstory wall. The painted decoration of the timbers of this roof of San Miniato is very attractive, the color effect is more elaborate than the photograph can show: it is really a very beautiful thing: and it is rare in Europe to find an open timber roof treated so frankly as a thing susceptible of adornment. In other ways it is curious to see the way in which the poverty and lack of skill of the tenth

[1] Respond: The pilaster, or engaged column, or pier of any shape, which forms the end of an arcade or colonnade marking the place of meeting with the enclosing wall.

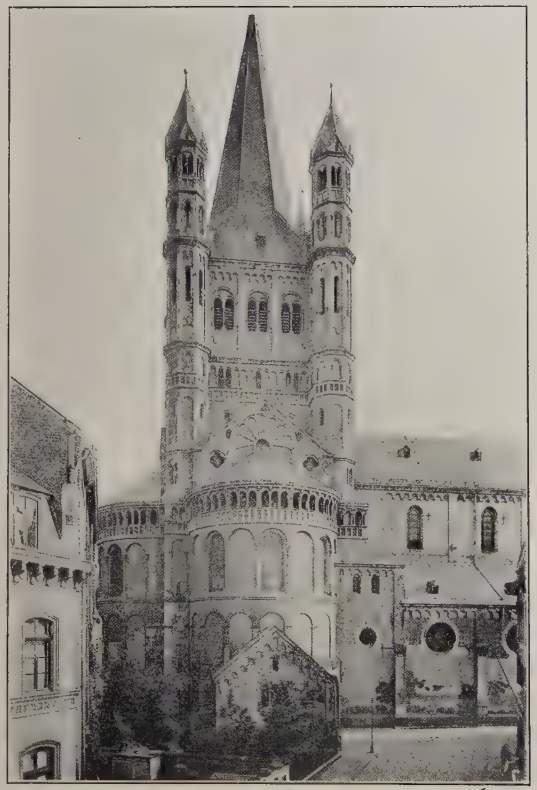
century men alter the style of design from the huge Roman way of doing things. Lightness has to be substituted for ponderous masses; the walls are as thin as would stand alone and fairly steady: only the columns, taken from antique structures, can be thought capable of bearing more weight than is laid upon them; the decoration is by means of a marble inlay of large and bold design on the walls and of minute pattern in the pulpit, the altar rail and the like, and, in the half dome over the apse,[1] a mosaic picture of sacred significance—Christ with the emblems of the four evangelists and with the Virgin and San Miniato the patron of the church. In these mosaics and inlays there is to be noted a great interest in abstract patterns; a characteristic of Asiatic art, but unfrequent in Greek or in Roman art as we know it. Basilicas of the fifth century and of the sixth century at Ravenna (S. Apol-

[1] Apse: A projecting member of a building, usually forming an enlargement or addition to a large hall, as a Roman basilica, or especially, a Church. The plan is usually a semicircle, or a semicircle with an added parallelogram to lengthen it, or a polygon approaching a half circle.

CHURCH OF SANT' AMBROGIO, MILAN.

PLATE XVII.

CATHEDRAL OF TOURNAI, BELGIUM, INTERIOR, LOOKING NORTHWARD ALONG THE TRANSEPT.



CHURCH OF ST. MARTIN (DER GROSS S. MARTIN) AT COLOGNE, RHENISH PRUSSIA.

PLATE XVIII.

linare in Classe and S. Apollinare Nuovo), of those and later centuries in Rome, of the eighth century at Parenzo in Istria, of the tenth century at Lucca (San Frediano) of the twelfth century in Palermo and Monreale in Sicily, and others, still exist with their main characteristics unchanged. They retain the simpler plan of rows of columns of uniform size and placed uniformly. Another whole family of churches are of the San Miniato type: the length of the nave divided into three or four greater bays,[1] subdivided into minor bays. Such are the famous churches of San Zeno at Verona, and of San Michele at Pavia and Sant' Ambrogio in Milan (see Plate XVII): but these two last named churches have vaulted roofs of stone. Plate XVIII gives the exterior of Gross St. Martin at Cologne and the interior of the cathedral of Tournai in Belgium, interesting in the highest degree as showing plainly how the Northern builders were not content with the simple pro-

[1] Bay: One division of a long building whose successive parts are alike, or very similar.

gramme of the Italians—an interior upon which all pains were lavished while the exterior was left to come as it might, a mere brick box with the round-headed windows cut plainly through the wall. These builders of French Flanders in the eleventh century made the exterior of their church effective by the process of building four square towers of very simple design, involving no sort of complexity in their construction, and grouping these towers at the four corners of a larger and lower central mass also of tower-like aspect, while to the westward stretched the long nave pierced with a series of precisely similar round arches, above and below, with long roofs of uniform section, and all this brought sharply up against the great rising mass of the towers from which again three semicircular apses went off to the east, the north and the south. In this way an external architectural effect was produced far more elaborate than anything that the Italians of that time had imagined. As the church of Tournai now stands, a

late Gothic chancel has replaced the old eastern apse: it is easy, however, to restore mentally the original exterior of the church, and, if it were more difficult, the contemplation of other Romanesque churches, especially in Germany, would provide us with the material necessary. Plate XIX shows from the east end the church of the Holy Apostles at Cologne, and it is easy to imagine the three apses of somewhat different design grouped about the central and dominating mass of the Flemish church. This church at Cologne has two nearly round towers connecting the apses and seems to have had four such towers originally, or in the first design, with one square tower in the middle of the west front. The church of St. Martin in the same place (p. 77; Plate XVIII) differs from these and from most Romanesque churches in having a very noble central tower, one of the finest productions of the Northern Romanesque.

It is evident that the admiration which we give to even the most important of these

churches is a different thing from that which the great monuments of antiquity compel. The construction of the mediæval churches is as complex as that of the greatest Roman monuments; this coming from a necessity of providing interiors relatively larger than those of the Roman imperial epoch. The builders even of the twelfth century, and even in the most nearly well governed countries of Europe, had but limited resources. No king, no great noble controlling a province, no bishop, no convent, however rich, could dispose of resources for one instant comparable to those of a Roman pro-consul in even a small town of the empire. The mediæval men had to get as much building as they could for their money. If they built their walls thick, as they seem to the modern traveller, this was because they were unable to get good masons. A stone wall may be carried up forty feet high with a thickness of only three feet, even when pierced with windows, if you have good workmen in your employ and fairly good

CHURCH OF THE HOLY APOSTLES, COLOGNE, RHENISH PRUSSIA.
PLATE XIX.

CATHEDRAL OF SAINT MARTIN, MAINZ, (MAYENCE) HESSE, GERMANY.
PLATE XX.

flat-bedded stone with tolerable mortar; but as your material is the worse and as your masons are the more unskilled, you have to build the thicker. Indeed the history of Romanesque architecture is that of a long-continued fight between the problem and the would-be solvers thereof. It was desirable to roof with masonry, partly as a safeguard when, as often happened, the wooden structure of the high roof above the walls caught fire and was destroyed, and also because of the comparative stateliness of effect, and because each bishop thought of building not for his own brief time only, but for his successors. And this very requirement, that each part of the building should be closed at the top with masonry, kept the builders of Western Europe busy from the time of Clovis on. The history of any one great church is a record of continual failure of walls, foundations or abutments; some part of the vaulting is forever crumbling and threatening to fall so that it has to be rebuilt; and now and then there's a crash and a

catastrophe. The buttresses[1] have to be enlarged; iron ties have to be inserted; even the plan of the vaulting has to be changed every now and then and a new experiment tried with a view to its greater permanence in another style of work. Hence it is that the modern student of such buildings has at once that delight in them which comes from their very archaism mingled with a kind of deprecatory pity: we sympathize with their builders' aims and regret their feeble resources and their small knowledge: we love their buildings as we love the stammering speech of childhood. There is something else, no doubt: such a splendid tower-group as that at Tournai, such a noble interior as that of Mayence (Mainz) cathedral (see Plate XX), are individually, and as works of art, powerful enough to command our sincere admiration: but these are the exceptions.

[1] Buttress: A mass of material, usually masonry, intended to resist, by its dead weight, the thrust of an arch, or vault, or, more rarely, the spread of a framed roof or the like.

Flying buttress: A sloping bar of stone, supported on an arched structure which serves to carry the thrust of an arch or vault across a space to the buttress beyond.

Exceptions in another way are found in northern and central France. The buildings there are not so remarkable for their superiority in general design as they are for their unparalleled richness in sculptural adornment. They have at the same time many larger features which are of peculiar interest. Thus the tower of St. Radegonde at Poitiers (see Plate XXI), square below and coming to an octagon for the belfry, is a wonderfully spirited composition: and close to it is that famous church of Notre Dame la Grande, of which a large detail is shown in the next plate. The builders of this latter church were lovers of sculpture and knew how to handle it in order to produce a great result, so they composed boldly in groups of statuary, floral sculpture, or sculpture as rich made up of wholly conventional forms. Plate XXII gives the wall above the three great portals of the west front of this extraordinary church; and while inferior in tasteful harmony to the cathedral at Angoulême near by, or indeed to many a noble church of the centre of

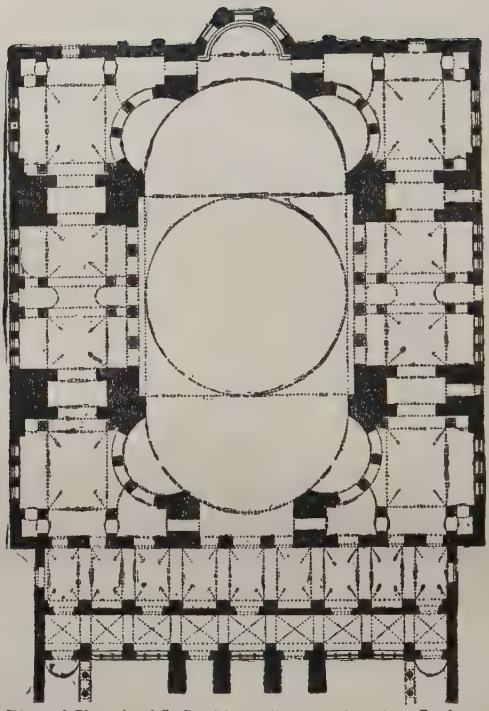
France, the richness of conception, and the easy way in which the constructional parts of the building are loaded with carved adornment without injury to its massiveness and its dignity are surprising enough. The sculpture is barbaric in its lack of knowledge, but to be barbaric is not to be weak or insignificant. The nineteenth century workmen of Europe had no such power of effective design. In this, as in building, the eleventh century men were surpassed by those of the years to follow: and but for that still greater Gothic art (see Chapter IV) we should have to go to Romanesque architecture for constant stimulus.

The architecture of the Eastern half of the Empire was much less nearly Roman in its plan. Basilicas there were; but at a very early epoch the type of what the Germans call the *Centralbau* prevailed. The centred building; so we might designate the plan and structure which presuppose a supremely important central feature, a hall, however opened up on three sides or four

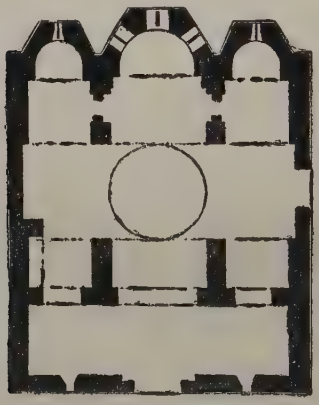
TOWER OF CHURCH OF ST. RADEGONDE, POITIERS, (VIENNE) FRANCE.
PLATE XXI.

DETAIL OF WEST FRONT, CHURCH OF NOTRE DAME LA GRANDE, AT POITIERS.
PLATE XXII.

sides to minor divisions, aisles, porches, and apses. See page 86. This great hall might be covered by a cupola, or, as often is found in the smaller churches, its vertical walls are carried up into a drum or round tower roofed in any one of several ways. The essence of the distinction between this plan and the Western plan is the absence of the "long drawn aisle"; and the arrangement of the whole around a central point from which the structures of the church may be said to radiate. There were, as has been said, straight-lined churches in the East: and in like manner there were radiating buildings in the West, notably, the round churches of San Stefano in Rome and the cathedral at Aix-la-Chapelle, St. Gereon at Cologne, and the rather numerous baptisteries, as at Florence, Parma, Ravenna and Pisa, which in their original state of being, were not baptisteries only, but became so after the basilica churches with nave and aisle had been built in the same towns for the cathedrals proper. Still, in connection with our immediate question, that of



Plan of Church of S. Sophia at Constantinople. Scale about 100 feet to one inch.

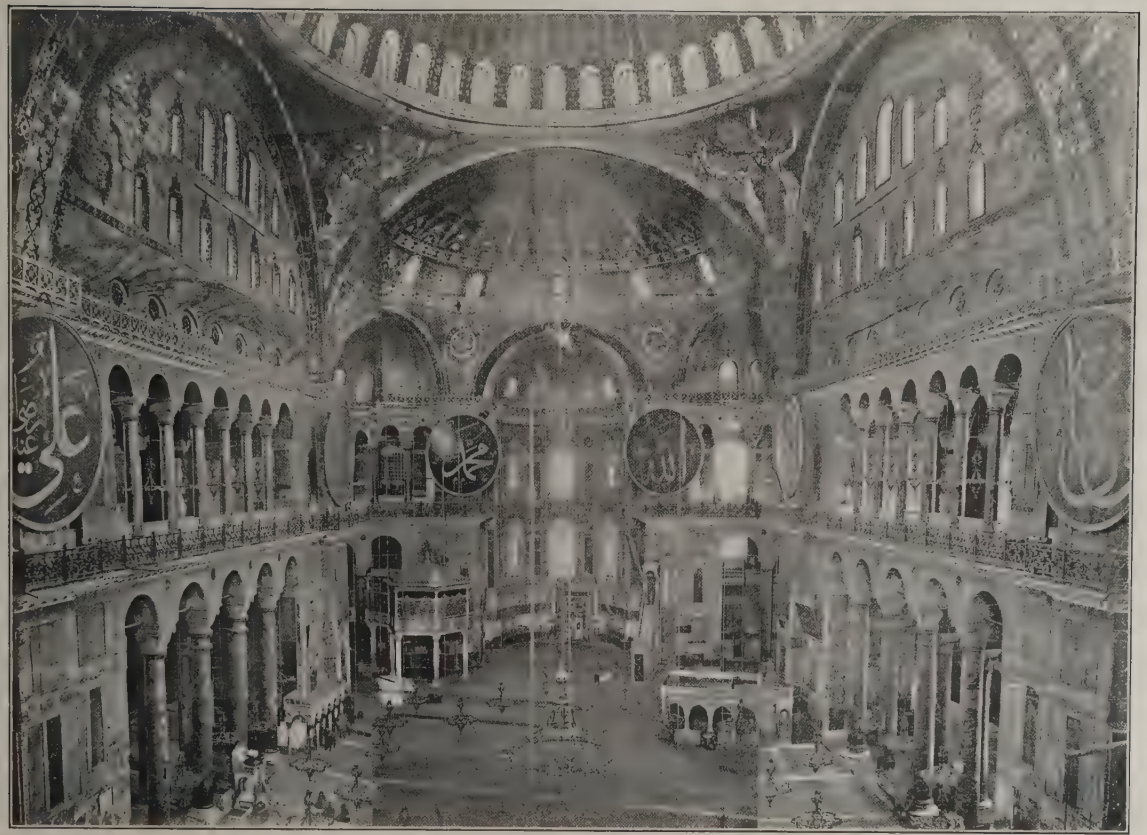


Plan of Church of S. Theodore, Athens. Scale about 25 feet to one inch.

the artistic appreciation of a building of any epoch, it is better to study round or radiating buildings in their own home of the Eastern provinces, as we study the basilica-shaped buildings in Western Europe.

Now the peculiarity of the Eastern church-building, that of the central hall, is generally the absence of any very impressive exterior. This was not necessarily the result of the plan adopted. One does not see readily any sufficient cause for the general neglect among Eastern designers of the appearance from outside; unless it be this —that the cities of the Levant were then as they are now made up, so far as the stranger who walks their streets can discern, of blind whitewashed walls upon which open only the doorways of the dwellings, and here and there, in the ground story, a small unarchitectural and carefully grated window. The street effects, common to the cities of the north of Europe, even as early as the eleventh century, and well known to us for their picturesque and varied character, are, in the Levant, simply non-existent, except

in those few cities which show strong external marks of commercial intercourse with Europe. The interior is indeed the chief thing in church building, anywhere, but in the Byzantine art it is everything, or so the student thinks. Plate XXIII shows the interior of the great church of Santa Sophia, at Constantinople, which seems to many the noblest architectural conception of the Christian world in any of its parts. Plate XXIV gives the exterior of the same building: and it will be seen at once how much there needs to be taken from it that its true Byzantine character may be judged. The tall round minarets are modern Turkish additions, put there for the muezzin who calls to prayer, the enormous buttresses, looking like lofty houses without windows, which rise one on either side of the great arch in the flank of the church, are additions resulting partly from the fall of the original cupola in the sixth century and partly from much later reparations; and all the small cupolas near, with the buildings which they cover, are wholly modern,



CHURCH HAGIA SOPHIA, CONSTANTINOPLE. INTERIOR.

PLATE XXIII.

CHURCH HAGIA SOPHIA, CONSTANTINOPLE. EXTERIOR.

CHURCH OF S. THEODORE, ATHENS, GREECE.

PLATE XXIV.

at least in their present form, whatever foundations of fifth century work there may be enclosed within them. It appears then that the only striking external feature of the original building would be the slow rise and swell of the central cupola, led up to by the similar curves of the two half cupolas covering the semicircular apses at the northeast and southwest, and contrasting boldly with the huge flat wall beneath the arch, on the northwest and southeast.

The magnificent conception of this interior is well known to be unique among the Byzantine churches; that is to say, no one of them has this same remarkable system of construction with four very open arches (one hundred foot span) supporting this low-pitched cupola which is then buttressed in a way by the half cupolas on two sides producing the striking interior form quite visible in the Plate XXIII. In other respects, however, this great church is rather the typical Byzantine church than a building apart. The other churches are like it in construction; they are like it in having the

central mass nearly circular, and the minor parts ranged around it on every side; they are like it in having drawn their constructional character from the vaulted buildings of Persia and the neighboring lands. Thus the church of St. Theodore at Athens, of which the plan is given on page 86, though it has three apses turned towards the east and a narthex at the west end, is still a building with a dominant central feature around which other parts are grouped. Plate XXIV shows this plainly, for nothing can be more remote from the basilica type than the group here shown. The cupola is evidently not complete—not a fully organized design—it has been roofed as cheaply as possible and at as low a level as the windows would allow: for these windows replace the great light-openings of the western clearstory. In Moldavia and in the southern provinces of Russia these cupolas are found by hundreds with their design fairly well worked out. Plate XXV shows a monastery in the region of the Caucasus, in which the principal church

PLATE XXV. MONASTERY OF GELATI NEAR KUTAIS IN THE CAUCASUS.

CHAPEL, NOW A MUSEUM, AT NANCY, (MEURTHE ET MOSELLE) FRANCE.
PLATE XXVI.

and three smaller chapels are all completed by the carrying up of just such cupolas above these central divisions. Now these buildings are all very small. The cupolas are twenty-five feet, eighteen feet, sixteen feet wide, within: St. Theodore's little shrine would not hold a hundred worshippers. It is easy to see that the exterior design with the high cupola was worked out for these small buildings; but it is easy to see also that the general plan is capable of nobler exterior treatment. If, therefore, there should ever be an attempt made to build in modern Europe in the Byzantine style, it will be modified, inevitably, by this possibility, and by the obvious necessity of satisfying the general demand for a splendid outside. The recently built cathedral in London, spoken of below in Chapter X, is an instance of this.

Still, the glory of the Byzantine style must be found in its interior decoration. The Greek half of the Empire took from the Roman masters of the world the taste for splendid material; and, wherever some

money could be had, the alabaster and the rosy and gray marbles of Greek and Asiatic quarries were brought to the spot. Mosaic gave a more vivid color; and this gave also the opportunity for the telling of the Gospel story and the legends of saints in permanent pictures. St. Mark's church at Venice is the type for Europeans to study. The sense of pure delight in glowing and harmonious color, combined with soft and flowing line, is nowhere so strongly felt: no building, until Santa Sophia can be cleansed of Turkish whitewash, will affect the lover of splendid decoration so powerfully.

CHAPTER IV

CENTRAL MEDIÆVAL DESIGN

Gothic architecture is a natural development of the Romanesque architecture of northern France. It took its origin in the second half of the twelfth century, that origin being wholly constructional. The Romanesque builders were extremely harassed by their problems of masonry roofing, as mentioned in Chapter III, and there was taken up as a device to facilitate this vaulting the plan of an arched rib of carefully-worked hard stone, carried diagonally across the open space which required the stone roof: then another similar rib crossing the first one, leaving only triangles, each about one-fourth of the full size of the open space, which triangles could be vaulted with great ease. Instead of a square or parallelogram containing a thousand square feet horizontal and needing to be covered

by a somewhat complicated vault, all that was required was the careful adjusting of two narrow arches in cut stone, and then the very simple vaulting of each one of the four triangles, about two hundred square feet each, horizontal. This was a simple and rather obvious device, one would think : but it took thirty years to develop, and once complete, the whole great system of Gothic building and the whole Gothic style, including everything from the cathedral of Reims to the smallest chapel, came from it as a matter of course.

If the student desire a clear notion of the nature and the appearance of Gothic rib-vaulting he may study Plate XXVI, in which the structure can be seen better than in the high vaults of a cathedral. Each rib is a part of an independent arch of stone, perhaps a foot wide and twenty inches or two feet deep. The arch-solids (voussoirs) are very carefully cut, and the arch built with all its company of corresponding arches to meet at top, midway, in a boss of cut stone. This done, the

triangular spaces are easy enough to vault with smaller and rougher stones, and the haunches are loaded outside and above with still ruder masonry.

The style was developed in that tract of country which lies between the Loire on the south, the Somme on the north, the Meuse on the east, and, on the west, a line drawn north and south through the cities of Caen and Angers—a district about one hundred and thirty by two hundred and fifty miles, equal to England and Wales south of the Trent and the Mersey, or, say, the State of Pennsylvania. The style was never quite at its best except in what is now France, though the boundaries of the district above named were soon overpassed by the perfected Gothic. The most nearly French, and therefore most normal and faultless, examples out of France are those of the Rhine and of northern Spain where French master-masons seem to have worked. The Gothic, beginning as early as 1190 in England, is of extreme beauty in a simple, quasi-domestic, less grand and less perfectly

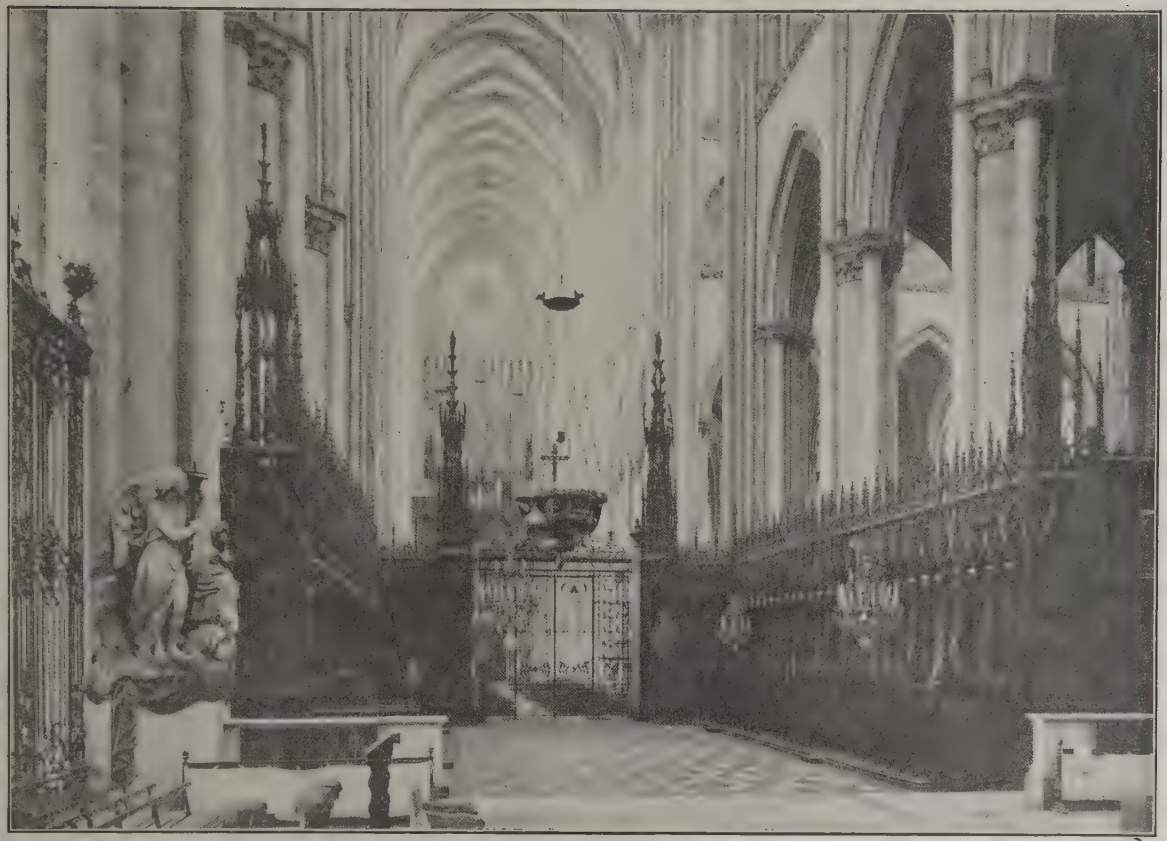
developed way than the French. The Gothic of Germany and the Austrian dominions differs from the normal type in being somewhat fantastical and irregular, but still more in a lack of a thoroughly intelligent proportion of the parts. The so-called Gothic of Italy is never admirable as a style except in a few Cistercian monastic churches: and the magnificent cathedrals such as Orvieto, Siena, Monreale, and Florence are rightly beloved indeed for their magnificent combination of the decorative arts of form and color—their mosaics, their delicate sculptures in marble, their wrought and highly developed porches, their superb wall-tombs—but are of minor architectural importance from the very fact of their complete lack of constructional significance.

Let us consider the cathedral of Amiens in the department of the Somme, about sixty miles north of Paris. This we may take as being the accepted representative of French Gothic churches, lacking indeed some features which others of its own time

have retained, but completely typical in its plan and structure. Plate XXVII gives the interior looking westward from the choir and shows the nave in steep perspective so that its seven bays are much foreshortened, and with this a part of the north aisle and a part of the choir in which we stand. The great height of the nave is shown without that sometimes disagreeable appearance of a narrowness disproportionate to the height such as is sometimes seen in photographs taken directly on the axis of so lofty a church. The members which go to make up this great height are also visible; the first row of nave arches repeated in the choir and in the transept, the second story of arched openings which gives us the triforium,[1] and the third story which is called the clearstory, and which contains the great windows as well as the vaulting which constitutes the inner roof of the church. The round window in the dis-

[1]Triforium: Properly, a gallery more or less open, built in the wall opposite the aisle roof, and therefore above the great arches of the nave and choir and below the clearstory windows. Often, a gallery in the wall below the clearstory but less accurately placed.

tance forms an important part of the west front. Close to the spectator the lofty wall broken up into canopies and arches and crowned with a forest of pinnacles is entirely of carved oak, and includes an incredible number of most exquisite carvings, which decorate all parts of the partition itself as well as the stalls or the seats for choristers which are dimly seen below. The iron gates, seen as closed, give access to this enclosure which is the liturgical choir, that is to say, the enclosure made within the architectural choir, and intended to serve for the clergy and their assistants. As to epochs, the whole structure of the church is of the thirteenth century: its vaulting, its arches and piers and windows and its delicate sculpture; and its original plan, though conceived during the last years of the twelfth century, cannot be thought to have been perfected until the structure rose upon it. The carved work of the choir is very much later, representing the last development of Gothic art and belonging more properly to our Chapter V:



CATHEDRAL OF AMIENS (SOMME), FRANCE, THE CHOIR AND NAVE, LOOKING WESTWARD.

PLATE XXVII.

CATHEDRAL AT REIMS (MARNE), FRANCE, VIEW IN CHOIR AISLE, LOOKING N. E.

CATHEDRAL AT REIMS (MARNE), FRANCE, VIEW IN CHOIR AISLE, LOOKING WEST.

PLATE XXVIII.

it is known to have been executed between 1508 and 1520. A very few years later were wrought the splendid sculptures in stone of the outer choir screen—the massive wall which encloses this graceful work in carved oak: but these must be referred to Chapter V. The great iron gates, beautiful of their kind, belong to the eighteenth century: they replace a noble jubé or rood screen which once separated the choir from the crossing, where nave and transepts meet.

Now it is clear enough what we have to admire and enjoy when we stand within such a church as this. The least attentive beholder is struck by the great height of the church; and the roof, one hundred and forty feet above the head, is not invisible nor lost in darkness, but shows its elaborate structure of elastic ribs carrying thin vaults which bear upon the ribs and thrust in every direction, so that the general character of the construction is readily grasped. The height is made manifest—it is in a manner explained—by its division into

in the west front. In the other, we look across the choir proper, that is the liturgical enclosure, from southwest to northeast, seeing the beginnings of the curve of the chevet or rounded apse. In these interior views are seen in a more intimate way the characteristics of a great Gothic church. The vastness, the height, the soaring grandeur of the interior are for the moment ignored, and we see the lower vaults and the clustered pillars which support them and the higher vaults of the nave, as well as the delicate sculpture of the capitals. The interior, however, though certainly the thing of primary importance, is not all that we have to study.

The outside of the Gothic Church is as closely related to the structure as is the inside and forms one with it. Plate XXIX gives the exterior of Amiens cathedral. The highest windows are those of the clear-story, which is the upper part of the central nave, in this case the nave of the choir. Below these is the roof of the inner aisle hidden here by the pyramidal roofs of the

CATHEDRAL AT AMIENS (SOMME) FRANCE, CHOIR AND SOUTH TRANSEPT FROM THE S. E.

PLATE XXIX.

CATHEDRAL AT CHARTRES (EURE ET LOIRE), FRANCE FROM THE S E.
PLATE XXX.

chapels, built much later. Now as to the forest of flying buttresses, those sloping bars of stone carried on stone arches, which surround the clearstory, the only purpose of these is to receive and neutralize the thrust of the vaults within. The high vault above the clearstory pushes against the uppermost flying buttresses. The vault of the inner aisle has its much less formidable thrust taken up by the vaults of the outer aisle as far as the lines of the plan are straight, east and west, and by those of the chapels as soon as the curve of the chevet[1] begins. By means of the double set of flying buttresses, those within and higher and the outer and lower ones, the thrust of the high vaults is carried across the whole space occupied by the two aisles, and finally turned over to the upright piers which themselves serve also as buttresses for the outer aisle. Or, to approach the same set

[1] Chevet: In mediæval and especially Gothic architecture the rounded end of the choir including the aisles which pass around the sanctuary and the chapels outside of the aisles. The shape may be curvilinear or polygonal. The original term in French is applied to square east ends also; but this is hardly accepted in the English usage.

of counteracting forces from without, we have as we walk along either flank of the church, or around the curve of the chevet, a row of heavy and solidly built stone piers with much their greatest horizontal dimension in a direction across the axis of the church; that is to say, each one of them is perhaps twenty feet in and out by three feet or three and a half or four feet in width, measured east and west. Each one of these piers is built in with the low wall outside the outer aisle, or of the chapel, as seen in Plate XXIX, and the lower part of this wall helps to resist the thrust of the roof-vaulting of that same aisle or chapel. As the pier goes up, it is soon left clear of all walls and roofs, and the flying buttresses from the vaults butt against it.

The Gothic builders had other thoughts over and above their logical desire to show everywhere the true structure. They had also the taste for upward-pointing lines: a taste which seems to have grown with the development of the style. It was not this taste which in the first place made their

buildings high as compared with their width: that was a mere matter of convenience and of obtaining very large windows above the aisle roofs. But the pointed arch itself, and the steep roof needed to protect the stone vaults from rain in a rainy climate, led these builders constantly towards the steeper pitch, the sharper point, the more lofty and soaring design.

Plate XXX shows the cathedral of Chartres seen over the houses of the town, from the southeast. The two great towers on the left of the picture are those which flank the west front: one of them, the simpler one, seen on the extreme left and flanking the west front on the south is the most famous tower in France and the most important single piece of work in the history of Gothic tower-building, because it shows in a faultless way the transition from Romanesque to Gothic in those forms which are immediately caused by the necessity of vaulting the interiors. These secondary parts (for the vaulted interior alone can be called a primary and essential

part of the Gothic church) sympathize with that vaulted interior in the soaring character of the design, as has been said above. The other tower was rebuilt at a much later period and typifies perfectly the florid Gothic of the fifteenth century. We are to imagine, then, two towers at the west end, each very like the earlier one: and, as the picture shows, two others flanked the south transept. In the Plate, one of them is covered by scaffolding, some repairs being in progress. Two similar towers were intended to flank the north transept: and a tower, undoubtedly planned for a larger and higher mass than any one of the flanking towers just described, was to have risen from that part of the church where the transept crosses the great nave—the "crossing" as it is commonly called. Looking at this view of Chartres cathedral, we are to imagine it then as not having that high-shouldered look caused by the level line of the ridge of the church, because that roof would not be seen except in small patches, the seven

great spires rising high above it and the seven square towers which support them concealing the roof except here and there as the spectator moves about the church. Now it is an unquestioned reproach to the Gothic style that no one of these great churches was ever completed. Certain towers there were which have been so shattered by the burning of the roofs that they have been taken down. Spires have existed which have now disappeared, but the greater part of the magnificent towers conceived by the builders of the early years of the thirteenth century have remained incomplete, and the churches which were to have had them are only to be judged by an effort of the mind akin to that effort we have to make in considering the buildings of classical antiquity. We are better off with Gothic art than with Greek art, because we have the details: and also because we have that which no Greek building can be said to have had, the splendid and impressive interiors: but nowhere is there a great Gothic church

complete in its intended exterior effect. The nearest approach to completion is undoubtedly to be found in England, and, for a choice, in the lovely cathedral of Salisbury. The architecture is not nearly as splendid as on the Continent; it is more tranquil, more unpretending; it is less extraordinary in scale, surpassing in a less formidable fashion the buildings of residence and of government: and partly as a result of this it has been easier to build and easier to maintain these buildings in their intended completion. Plate XXXI shows this cathedral amid the trees of its close and well explains that peculiarity of position in which some English cathedrals are so much differentiated from those of the Continent. In spite of the trees, however, the great peculiarity is seen of two transepts—one crossing the nave at the point where the tower rises, as was the intention in the Chartres cathedral, Plate XXX: the other, to the eastward of that, and flanking the choir in a curious way, without example on the Continent.

CATHEDRAL AT SALISBURY, WILTS, ENGLAND, FROM THE S. E.
PLATE XXXI.

BELL TOWER OF CATHEDRAL, FLORENCE, TUSCANY.

PLATE XXXII

Now in judging such building, and such artistic intention as this, it is evident that we cannot use the maxims which are convenient to observe in the case of a Greek or a Greco-Roman monument. Lightness takes the place of evident stability: that is the first thing to notice. It is not so much that the walls are thin, as that they have disappeared: there are no walls—only a series of piers dividing windows, the opening filled with glass being much greater, if measured along a horizontal line running through the windows, than is the extent of the solid masonry. You see at once wherein there is an excuse for the saying "a wall of glass with a roof of stone." But there is more than this: the primary object of the designer has been to treat his construction as the main inspiration of his design. Inside and out everything is shown as it really is, the exact duty done by every stone in the structure is clearly visible to even an uncareful observer. This may be thought true of early Greek work as well: but then the structure of the Greek

temple is the simplest conceivable, a mere carrying of stone beams upon stone posts—no arches to thrust, no windows to open in the wall, most of all, no attempt to roof anything with masonry except in so far as a stone beam is strong enough to span a small open space between two strong pillars. Moreover, the Greek temple was so covered up with painting, and where the paint did not conceal the whole surface that surface was already so carefully smoothed and unified, that it was hard to distinguish stone from stone even in the marble-built temples of Athens—whereas those of the soft stone regions, coated with stucco, were in architectural effect absolutely monoliths. As for the Roman structure, built with unexampled massiveness, and wonderfully imposing in its mass and in the great size and noble proportions of its interiors, it was concealed from view by the entirely contradictory pretense at trabeated construction in the modified Greek orders of columns and pilasters: and where these were not in use the walls were very commonly

concealed by marble in great sheets, by tiling of glass, or by moulded stucco. The Gothic building also was painted: nor was there any hesitation on any one's part in putting up surfaces of stucco to paint upon where an elaborate picture was wanted: but this concealed nothing except the joints of a few courses of stone. The essential facts of the structure remained visible outdoors and in, and it was by a judicious proportioning of the parts of these structures, each to all the others, that the chief architectural effect was obtained.

Another class of fourteenth century buildings must be named, the Italian Gothic churches. Plate XXXII gives the most perfect piece of work among them, the tower known as Giotto's Campanile. Its exterior face is entirely sheathed in marble, thin slabs for the most part, white which has grown yellow, red which has grown a warm brown, and black or nearly black; and to the larger members of the elaborate composition is added the minute mosaic of one band after another all the

way up, and the still more delicate play of light and shade caused by slight and well modelled reliefs of ornamental character. Down below, unseen in the photograph, is a row of statues in niches, and two horizontal bands of bas-reliefs of sacred and legendary subject. The tower is exceptional in its perfect building: but there is nothing in the scheme of construction: it is almost as simple as a Greek temple. And this is where the great cathedral by its side is similar in character. Not Gothic in proportion, nor in any system of buttresses, nor in the disappearing of walls in constructional piers, nor in the disposition of the sculpture; it is Gothic only in its having pointed arches, and ribbed vaults, though these are so stayed up by massive masonry that the thing is no more elastic than the halls of Roman thermæ.[1] But it

[1] Thermæ: In Latin an establishment for warm baths: a plural noun used for a single building or group of buildings. The Thermæ of Caracalla mentioned in this chapter, occupied all the space within a bounding wall which formed a square of 1,100 feet (about twenty-eight acres) and within this were gardens, running grounds and the like, and among these the massive central building itself, 400x750 feet, twice the space occupied by the capitol at Washington, which is also immeasurably less massive and permanent in structure.

is beautiful in detail, encrusted and embossed, and most imposing in mass without, however ill-proportioned in the nave, within; and even within it is a grandiose nave up which you walk towards the culmination of the whole in the sanctuary under the great cupola.

CHAPTER V

LATE MEDIÆVAL DESIGN

In Chapter IV we have seen how strongly the artistic effect of the Gothic churches depends upon their structure. Everything in the structure depends upon and leads up to the vaulting; everything in decorative treatment depends upon the structure. That is true except in so far as the universally felt need of ornament founded on the study of nature and of abstract form modifies design. Thus the carving in conventionalized leafage of a band, straight or seemingly bent around a pier, and the choice of colors in a decorative window or a painted panel of wall beneath a window, are indeed independent of the structure. Moreover, the Gothic sculptors were as exceptionally energetic and forcible as the Gothic builders, and worked with them in the production of great schemes of associated sculpture which

were in harmony with the work of these very bold and skillful builders. Now, when, after the final expulsion of the English king and his armies from France, the suppression of the domestic feuds between hostile parties, and the pacification of the country under Charles VII, there was a sudden recrudescence of building and of decorative art, the half ruined churches were repaired, those destroyed were replaced. Between 1455 and 1515 there was a revival of architectural art comparable to that of the close of the twelfth century. There were not as many great churches undertaken, because nearly every diocese had its cathedral, and because the exclusively ecclesiastical point of view was no longer held by the people of the towns or by the nobility: but this was made good by the great increase in the number and splendor of civic and private buildings.

There is, then, a new and very magnificent Gothic art beginning about the time of the conquest of Bordeaux and Gascony, when the English armies were finally driven

out of France, and ending only with the complete establishment of the classical revival under Francis I. Contemporaneous with this, or nearly so, was the very splendid art of Spain, that curious and fantastic earliest Renaissance marked for us by such monuments as the Casa Lonja of Valencia, the portal of the University at Salamanca and that of the church of St. Paul at Valladolid: and in Belgium, the epoch of the great town halls, that of Louvain being of about 1460: that of Audenarde at the close of the epoch now under consideration. In Germany, too, there was the beginning of a most attractive civic architecture: and in England, although the civil war of the Yorkists and Lancastrians postponed anything like peaceful growth in art until near the close of the fifteenth century, there was established, beginning with the accession of Henry VII, in 1485, the so-called Tudor architecture which was really a continuation and development of the curious Perpendicular Gothic art with the added feature of fan-vaulting—the most original and per-

haps also the most splendid artistic achievement of the British Isles. Now in all this highly organized and florid art there was a general abandonment of the constructional principle which had been the root of the earlier Gothic, and there was no new constructional device or system invented to take its place. The new art is an art of convenience and splendor, but it has no especial root in the necessities of building. The new Gothic builders were very skillful and learned, they knew rib-vaulting by heart, and also they understood vaulting in the solid shell: they could do anything,—but there was no special task to which they had set themselves and therefore they played with their buildings. Nor was there to be introduced, during the centuries that were to follow, any new principle of building.

In Greek building, in Roman building, in Romanesque building, and especially in its culmination in the Gothic system, we are to look to the way in which the buildings have been carried out. Plan, that is to say the arrangement of parts for utility

or internal effect, has much to do with our appreciation of a building: but the structure, the actual putting together of materials, is of still greater importance. You do not pretend to judge of a Greek temple without being able almost to count the stones of which it is composed or without appreciating fully the relative part which they play. In Gothic architecture, assuredly no person would dream of finding any enjoyment in a church without having first secured a good working knowledge of how it came to be what it is—how the stone roof is kept in place in the wonderful way that we see it and what part is played by pier and flying buttress. But this interest in the life of the structure becomes faint as we consider the buildings of the four centuries beginning with the year 1400. We have to consider some splendid works of art produced between that year and the outbreak of the French Revolution, but in none of them is there any special call for studying the theory or practice of the builders. They may build well or they

may build carelessly : that is comparatively indifferent under the new régime, for designs are made and carried out for their own sake ; nor is the master of construction any longer the master of design.

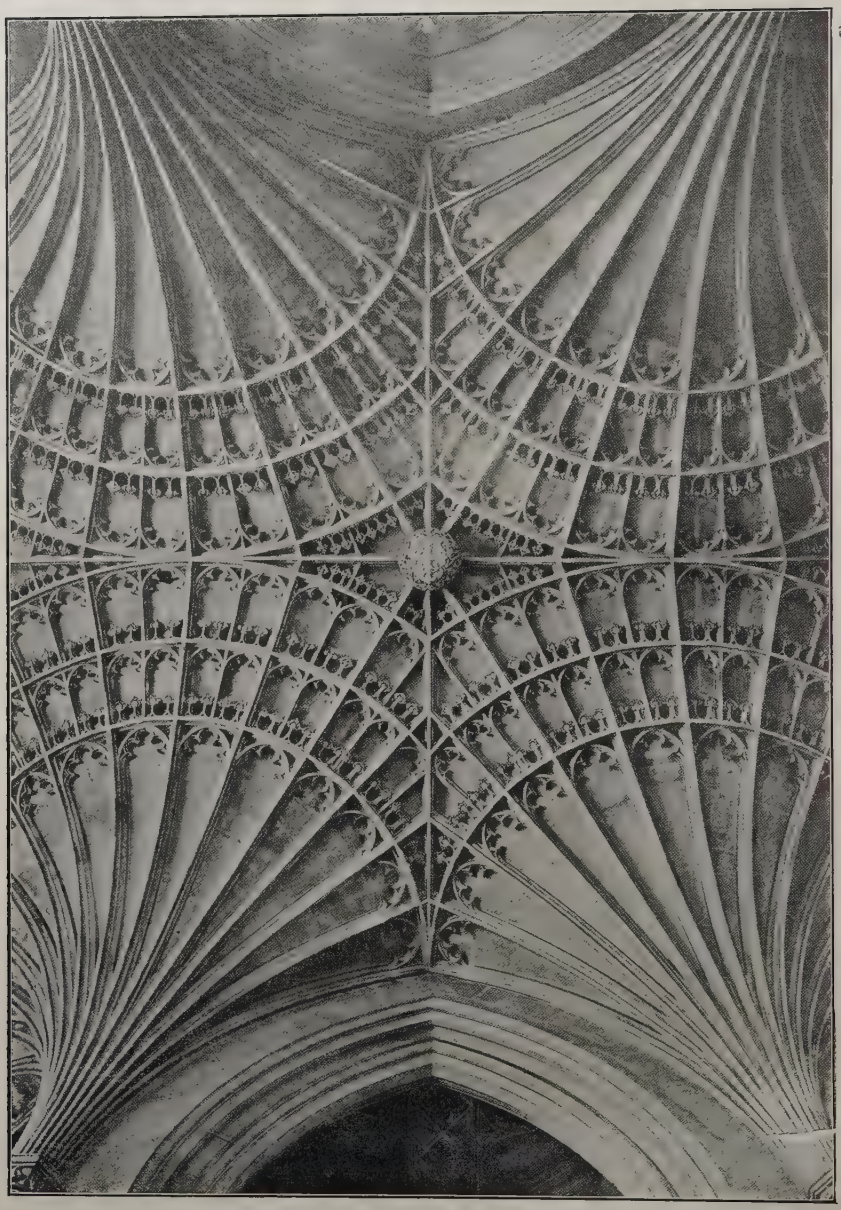
The reader will understand that in such general statements as these in matters of fine art there are always many drawbacks and qualifications. The fifteenth century had still a deal of Gothic vigor, in all the north of Europe. There were great builders after, as before, the pivotal year 1400. This discussion will even include the names of men especially praised as being great constructors : the point is that their system of construction had little to do with their design. Jacopo Sansovino and Sir Christopher Wren were great builders, but their designs were not in any special way the better for that. Their work is marked everywhere with the modern characteristic of being designed abstractly, and as if intended to be carved out of a single block, and afterwards put into terms of mortar-masonry and cut stone, because that was the only way in

which the builders of the time could proceed.

Let us consider the fan-vaulting of England. Its earliest appearance is in the cloisters of Gloucester cathedral, built after 1375. Plate XXXIII shows the eastern ambulatory of these cloisters. At the first glance this vault seems to be built with ribs like that of Amiens or that of Reims, as shown in the plates of Chapter IV; but the network of projecting ribs in the Gloucester vault is a simulacrum only. The vault is a solid stone shell, homogeneous, and built of large pieces. Plate XXXIV shows the vault of the choir-aisle of Peterborough cathedral seen as looked at from below. The joints of the stones can be made out: they have no relation to the system of mouldings and panels. In England, however, where the Gothic vaulting system had never been as important a factor in art as it was on the Continent, this new and unique system of vaulting was introduced as soon as the Wars of the Roses were over. The three great monu-

CATHEDRAL AT GLOUCESTER, GLOUCESTERSHIRE, ENGLAND, VIEW IN CLOISTER.

PLATE XXXIII.

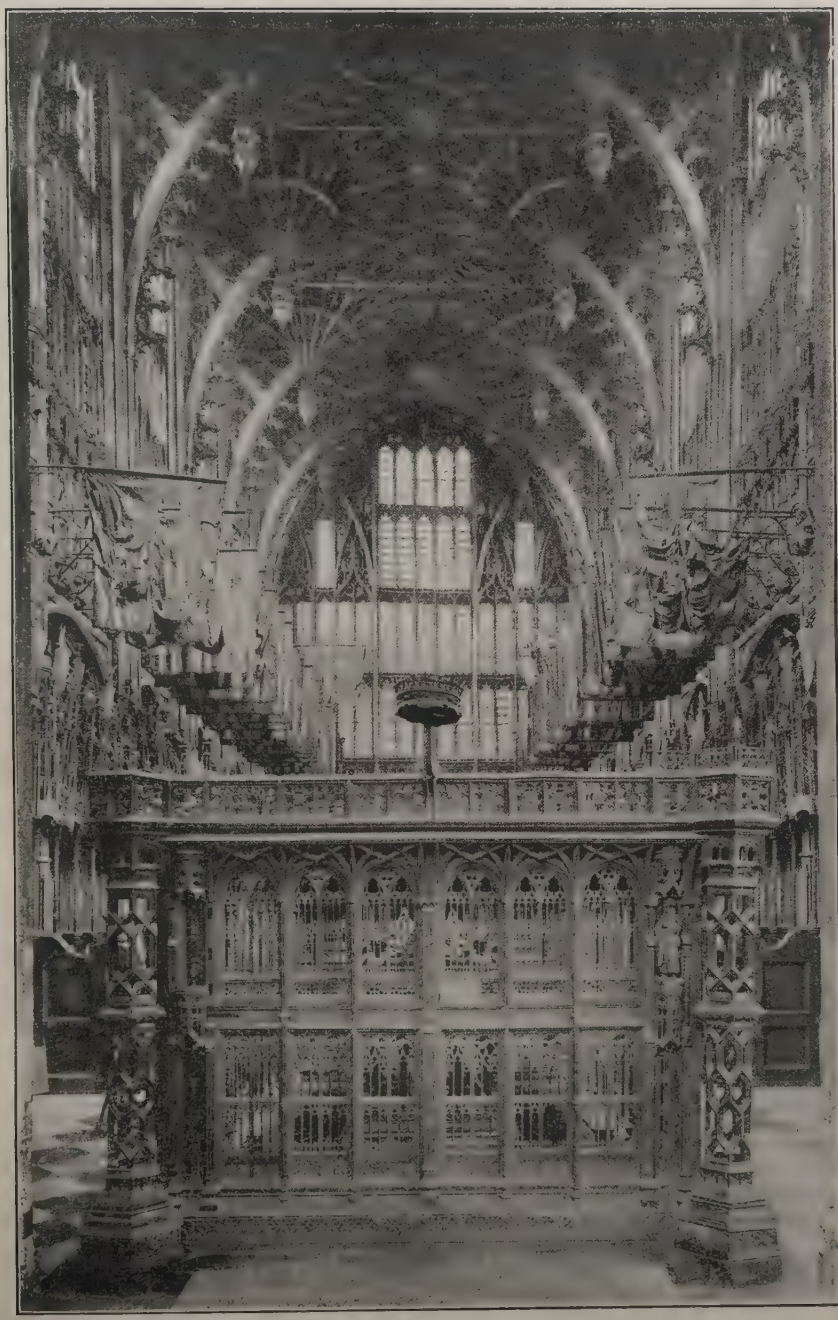


CATHEDRAL AT PETERBORO', NORTHANTS, ENGLAND, FAN VAULTING OF CHOIR AISLE.

PLATE XXXIV.

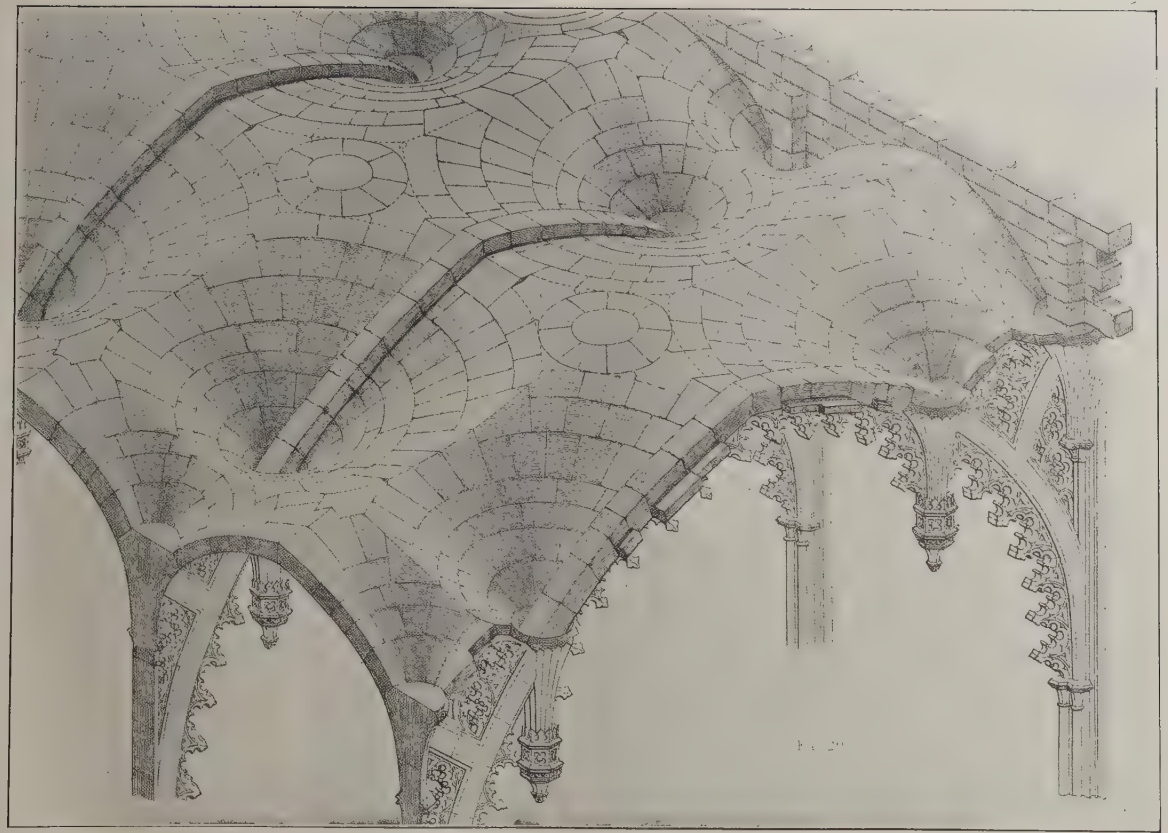
ments of this "fan-vaulting" are St. George's Chapel at Windsor Castle, the Chapel of Henry VII, attached to Westminster Abbey in London, and chief and noblest of all, Kings College Chapel at Cambridge. This last may well be thought the finest interior in England; and the other examples mentioned are inferior in charm: and yet, since the Cambridge Chapel has been shown in photography very often, it has seemed better to consider here less-known examples. The vault is a perfectly safe building, especially on a small scale, but it is not rib-vaulting. When, however, the great vault of Henry the Seventh's Chapel at Westminster Abbey was undertaken, about 1515, a different system had to be followed. The span or clear width of the nave is not very great and yet the task of supporting the astonishing stone roof, seen in Plate XXXV, was one worthy of the shrewdest and most daring builder of the time. The stone ribs which spring directly from the uprights with but the slightest pretense at vaulting shafts in little

round mouldings with slightly marked capitals, are really the arches which carry the whole stone structure of the roof. The great pendants into which these ribs disappear, and which themselves form the basis of the fan-vaulting system, are of course without constructional value. The roof is to be taken as an elaborate piece of geometrical carving, ingeniously arranged in the semblance of a constructional work; its real construction (sound enough, intelligent enough, or the roof would not stand) masked by the extraordinary composition in radiating lines, as if the cloister of Gloucester Cathedral had lent its roof to be raised high into the air, and completed on the side towards the windows by the continuing of each circular cone in that direction. Plate XXXVI gives the admirable drawing made by Robert Willis of the construction of this vault and it is easy to see that while the mechanical skill shown in the work is great and peculiar, there is nothing whatever left of the system of Gothic vaulting, nor any dependence placed



WESTMINSTER ABBEY, LONDON, CHAPEL OF HENRY VII.

PLATE XXXV.



CONSTRUCTION OF ROOF, CHAPEL OF HENRY VII.
(From Drawing by Robert Willis.)

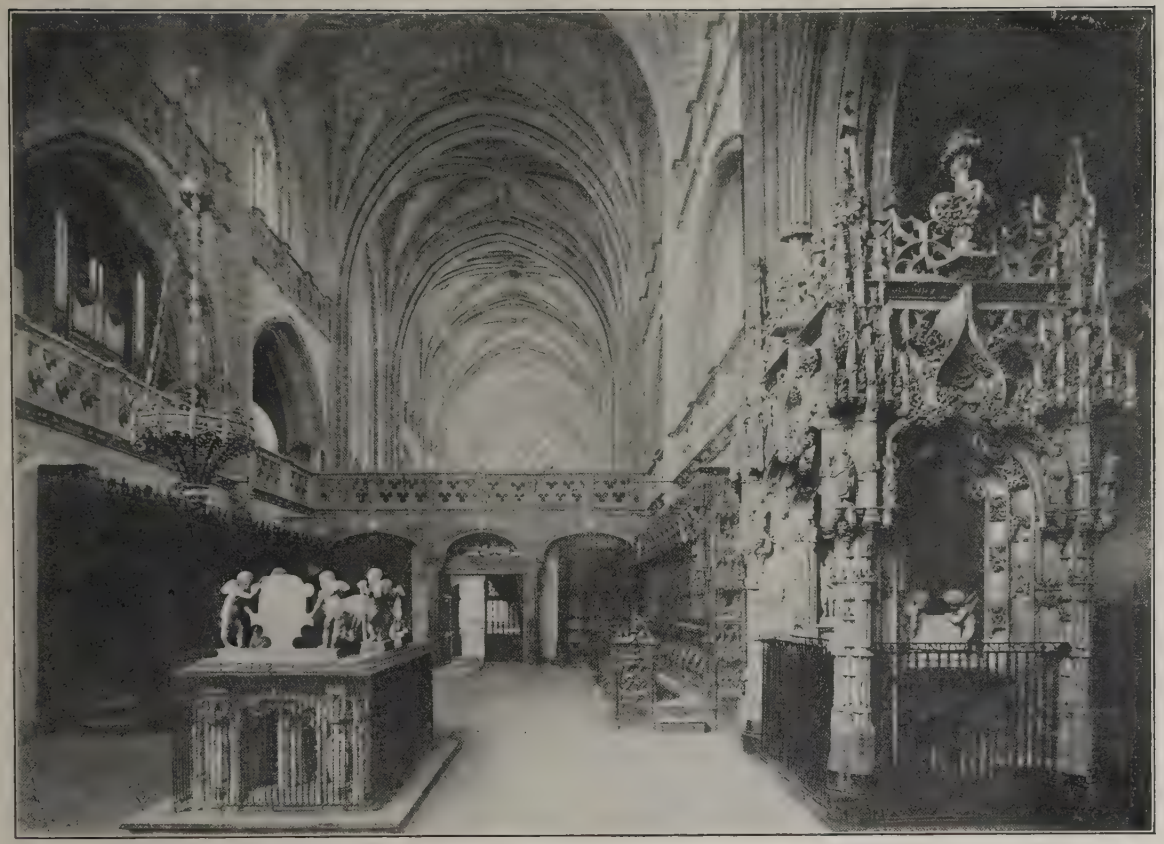
PLATE XXXVI.

upon the numerous radiating ribs which seem to be the very framework of the structure. They are decorative mouldings worked upon the surface of a solid stone vault, built in a single shell which extends from one to another of the great transverse arches which span the nave.

This design marks the culmination in England of that florid Gothic in which early principles have a subordinate part, while newly required elaboration and tricks of deceptive brilliancy of workmanship come to the front and absorb the interest of the beholder. No one can remain indifferent to the fantastic and yet enduring charm of such a roof. The roof of Kings College Chapel has already been mentioned as of extraordinary beauty and as forming with the vertical members which support it and the windows between them a Gothic interior as splendid as anything out of France: but its beauty is of a style which had already lost its reason for being, and its appearance of constructional dignity is in a way deceptive. The admiration we

bring to such a monument is then very different from that which we give to the interiors of the great Gothic churches shown in the plates of Chapter IV, or to the many other beautiful naves and choirs of the thirteenth and fourteenth centuries in England, France, Spain, and Germany. At Ely and Salisbury, Bourges and Laon, Burgos and Gerona, Cologne and Vienna, the student enters a great church, whose vault was completed at any time between 1200 and 1400, with perfect certainty that the structure is as sincere and obvious as it is impressive; nor does any doubt enter his mind as to the utility of the members of the structure around him. It is only with the beginning of the florid Gothic that this wholesome frame of mind can no longer be retained.

Let us consider the church of Brou, standing close to the town of Bourg-en-Bresse, in southern Burgundy. It was not begun until about 1510: that is to say, its construction is contemporaneous with the earlier years of Henry VIII in England,



CHURCH OF BROU, AT BOURG-EN-BRESSE (AIN) FRANCE.

PLATE XXXVII.

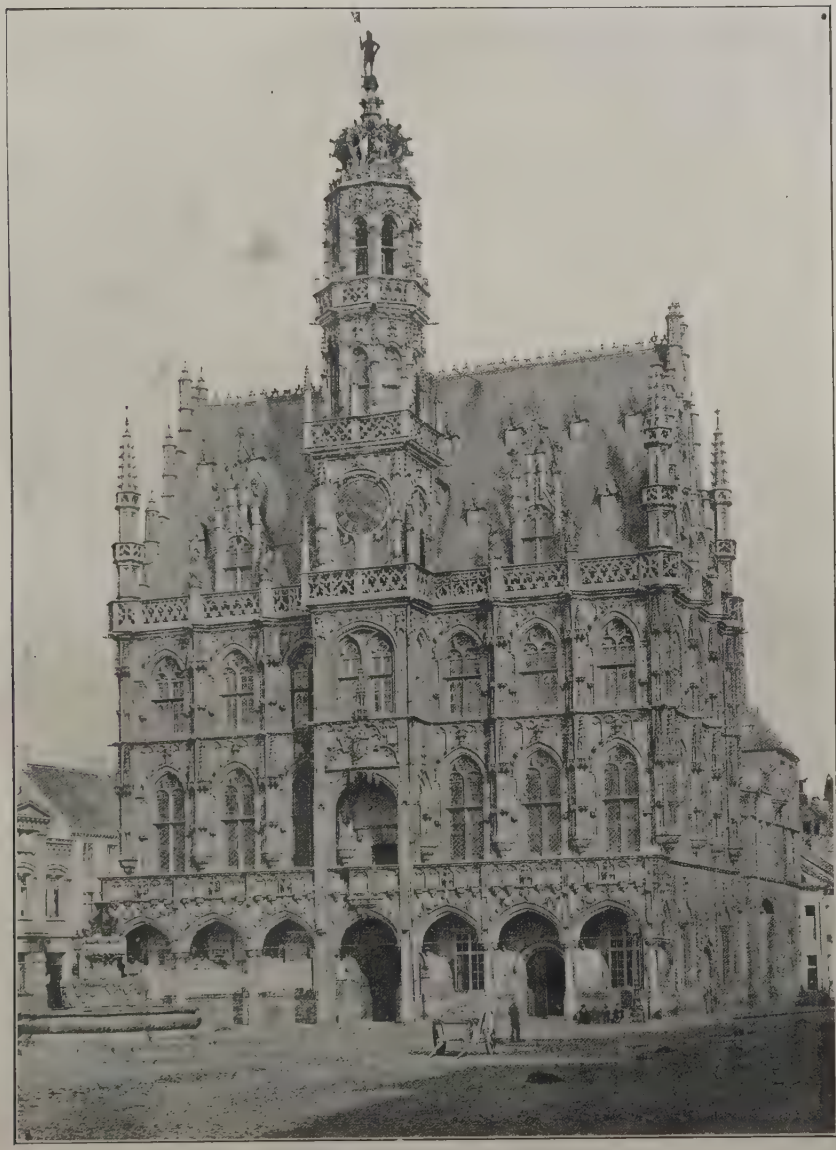
CHURCH OF SAINT WULFRAN, ABBEVILLE (NORD) FRANCE. DETAIL OF WEST FRONT.

PLATE XXXVIII.

and the reign of Ferdinand and Isabella in Spain; and, in architectural history, it is contemporaneous with so much of the building of the present St. Peter's in Rome as fixed the architectural style of that great church. Plate XXXVII is a view of the church of Brou, looking westward to the great front whose large windows fill the nave with dazzling daylight and make that west wall itself invisible. The Gothic structure here is complete—as logical and exact as in the palmy days of the thirteenth century; but the decorative treatment is different indeed! On the right is the tomb of the Duchess Margaret of Austria, who completed the church and set up her own and her husband's tomb with those of earlier princes of the line. This tomb is a structure wholly in keeping with the church, as it was really the cause of its being. There is nothing more interesting in such work than the completely realized naturalistic character of the statuary. Nowhere has the art of the sculptor been left so free as in these flamboyant Gothic buildings—so free to

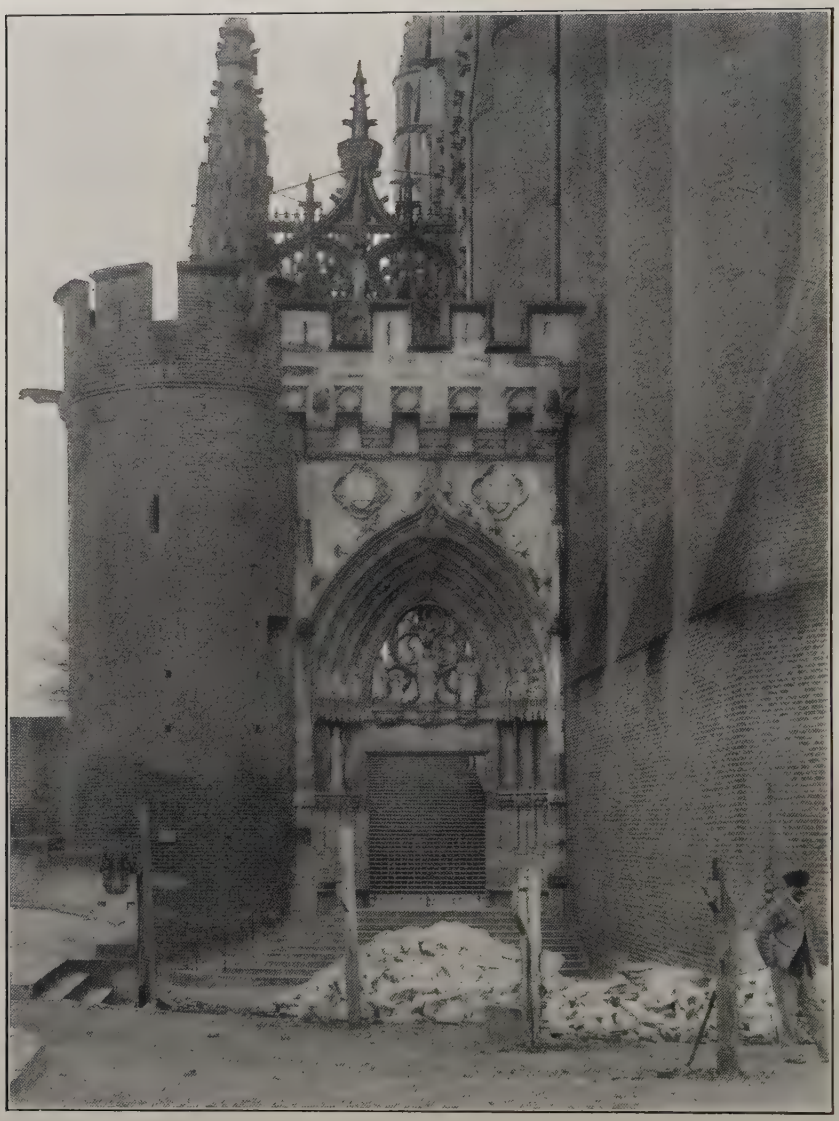
develop itself while still it remains in strict accordance with the requirements of the architectural design. The splendid church of S. Wulfran at Abbeville, in the far north of France, helps us to see still more plainly, this extraordinary development of architectural sculpture because the scale is larger and the artistic power manifested immeasurably more fit to cope with great undertakings. Plate XXXVIII giving part of the west portals of that surprising church will show how completely the sculptor's art has changed since the portals of Reims and of Chartres were undertaken. As for the architectural treatment it is still like that of the church of Brou, Gothic with modifications. The hold which the Gothic system of vaulting, and of building to support the vaults, had over the French builders is visible in this return to earlier principles as soon as the dissensions of the country allowed.

The famous Town Halls of the Netherlands have preserved for us the most perfect, because the most unmingled, traces



TOWNHALL OF AUDENARDE, BELGIUM.

PLATE XXXIX.



CATHEDRAL AT ALBI (TARN), FRANCE, OUTER GATE LEADING TO SOUTH PORCH.

PLATE XL.

of flamboyant Gothic in civic buildings. The latest of all and the smallest one of importance is that at Audenarde in Belgium, built between 1525–30. It is represented in Plate XXXIX, lending itself well to pictorial reproduction on a small scale because it depends but little on the sculptured details. A single Madonna with the Child, above the loggia from which the town authorities would speak to the people in the days of municipal independence, is the only representative sculpture of importance in all this front, below the cornice. The fantastic Gothic tracery with conventional carving covers the blank wall spaces with a continuous veil of slight and not unpleasant roughening; and the wall spaces are so small that this formal kind of ornament is not disagreeable. Small statues should have been placed in the niches; but the building does not seem to suffer much from their absence. We can judge of it as being what it is, a most simple and practical City Hall, built with pointed arches, with a steep roof adorned by tower, dormer win-

dow and pinnacle, and the whole structure covered by this thin veil of moulded, cusped and traceried ornament, chiefly because the church architecture of previous years had led up to that kind of design by natural evolution, and because the spirit of the time knew of but one architectural treatment. Therefore, without vaulting, with five stories of rooms replacing the great hall of the church, with windows made to open and shut for the convenience of the inhabitants of small rooms, the building is yet closely in agreement with the church building of the time, and is to be judged as a part of the great and long supreme style out of which it has grown.

In the famous south porch of the cathedral at Albi, this florid Gothic has reached its culmination. Plate XL shows the outer porch; that which, when the cathedral was really a fortress of some importance, guarded the first approach to the long flight of stairs, the outer perron. Nothing is more attractive among the minor charms

CATHEDRAL OF ALBI (TARN). FRANCE, SOUTH PORCH.

PLATE XLI.

PLATE XLII. LOGGIA DEI LANZI, FLORENCE, TUSCANY.

of spirited old architecture than these mixtures of florid and even fantastical design with the grave solemnity of fortress towers and the harsh line of battlements intended for the service of war. Passing through this gateway which is pierced in a fortress-wall merely and leads directly to no covered apartment of any sort, the visitor mounts some twenty-five stone steps and reaches the porch shown in Plate XLI, but he does not enter it by the larger archway; that is the south archway to which there is meant to be access on the level of its own sill. On the right and partly hidden by the huge buttress-pier is the narrower eastern doorway, to which access by the steps is had, from the outer porch, Plate XL. The great inner porch (Plate XLI) dates from the earliest years of the sixteenth century, and is one of the greatest triumphs as it is one of the very latest productions of that strange art which has abandoned the essential character and basis of Gothic architecture without losing its derived and secondary charm, which may be defined as

the charm of picturesque variety and sharp contrast—the very reverse, or so it seems, of the calm harmony of Greek design.

CHAPTER VI

REVIVED CLASSIC DESIGN

About the year 1420 A. D. there was a great change in the architectural outlook in central Italy. The Risorgimento[1] was already in full vigor, and this had to do especially with the study of the literature of classical antiquity which had been going on for nearly a century. Latin authors were studied afresh, and, for the first time in Europe Greek authors were inquired for and discussed, though the time had not yet come for the serious study of the language. There was also a very marked change in the feelings, the aspirations, and the power of painters and sculptors. Giotto had done his work and had been dead nearly a century, and Simone Martini as long: Niccolò Pisano had been dead so long that his influence

[1] Risorgimento: See note, p. 46.

was felt chiefly in the work of his son Giovanni who also had died a century before our present enquiry begins: Orcagna, architect as well as painter and sculptor, had opposed in the spirit of Italian tradition the influence of the Northern school of Gothic art, and had left behind him when he died, about 1380, the admirable portico in Florence known as that of the Lancers. (See Plate XLII.) Each of these men had done what he could to lead the direction of artists' thought away from the non-national Gothic style. As sculptor and as painter, each of these artists had much to aid him in the ruins of antiquity. Had there been only the sarcophagi and other portable relief-sculptures they would have had material enough to begin their work in the direction of a higher realism, a more perfect study of the human body, a more refined casting of drapery, a more severe style of composition, than previous centuries had allowed. The classical feeling had taken possession of the painters and the sculptors: Paolo Uccelli, Castagno,

Gentile, Masolino, and most of all the great Masaccio, were at work: and as for sculpture, Lorenzo Ghiberti was forty years old and Donatello thirty-four, and the modern arts of form had taken shape. The sculptors and the painters had been encouraged in their ambitions by the works of Greco-Roman art about them: but monuments of ancient architecture were so much defaced, even in the fifteenth century, that it required a very different lesson before their significance could be learned, and this lesson, this strong teaching, was to be given through scholarship rather than through the observation of the artist. It was not until ancient literature had been well studied for half a century that an enthusiastic young builder, Filippo Brunellesco, undertook to study the Roman ways of vaulting and went for that purpose to Rome as the place where the greater number of important classical buildings remained, or perhaps as the place where stood the always famous Pantheon. (See Chapter II.) It was 1430 before the first

building was begun in which an attempt was made to use the classical orders in wholly new work. This was the Chapel of the Pazzi, attached to the church of Santa Croce, in Florence, and the exterior of this is shown in Plate XLIII as far as it is possible to obtain an intelligible photograph of its more important parts. It is a small thing; but assuredly it is marvellous to see, because of the boldness required on the part of its designer. If we try to imagine the habit of mind of a man who had never seen anything built in Greco-Roman orders in any form, or designed in the Greco-Roman spirit, who knew buildings of classical design only as fragmentary ruins and who himself had carried out many designs of his own in a spirit, not Gothic indeed, but assuredly not classic, and who then, at the age of fifty-five, in a time when life was shorter and began earlier than now, undertook and carried out such a composition as this, there will indeed seem cause for surprised admiration. There is a modern Italian feeling in the little rondels which

CHAPEL OF THE PAZZI. CHURCH OF SANTA CROCE, FLORENCE, TUSCANY.

PLATE XLIII.

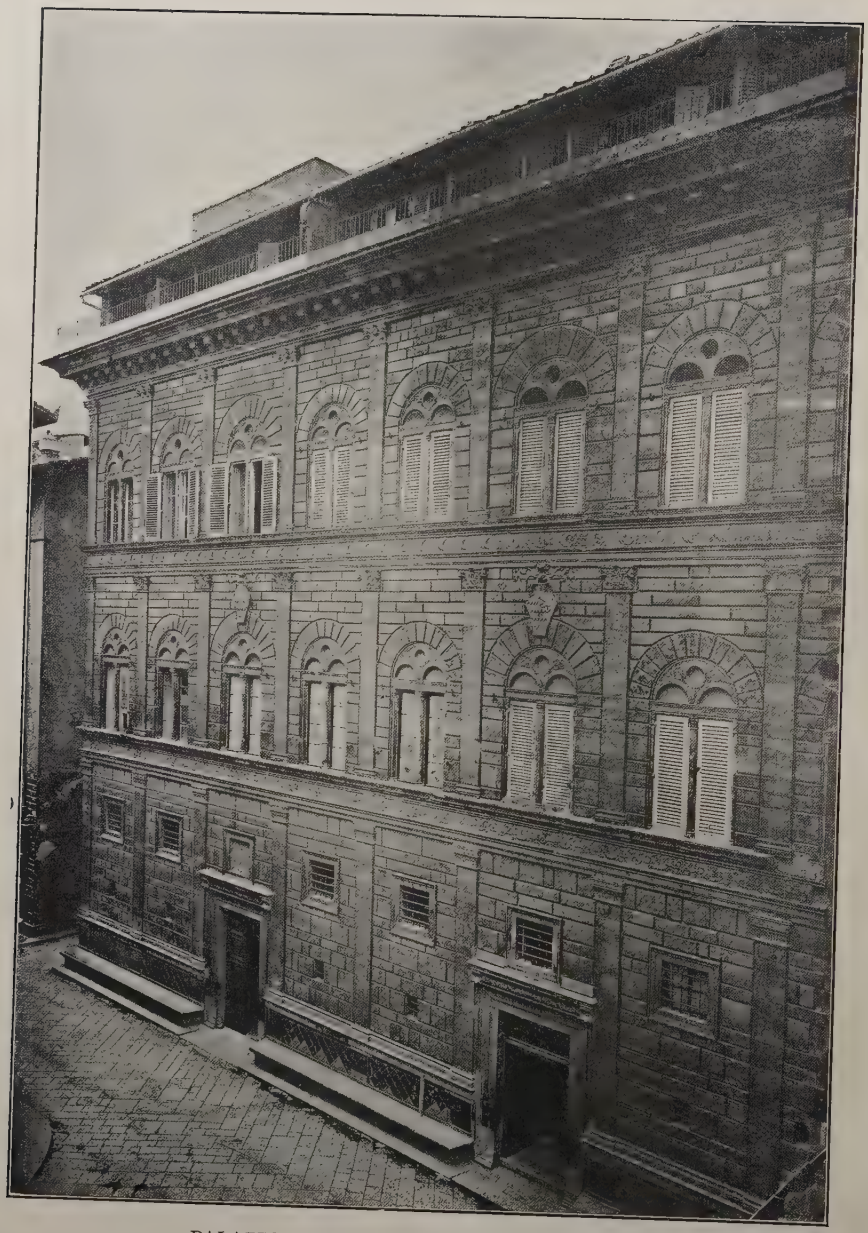


PLATE XLIV. PALAZZO RUCELLAI, FLORENCE, TUSCANY.

adorn the frieze above the columns: but these rondels are filled with cherubs and the whole composition may be set down to the Christian ecclesiastic feeling. Again the fifteenth century spirit is seen in the sculpture of the central arch, both on the archivolt[1] and the intrados:[2] but he had no antique example of a decorated arch and as an artist he felt the need of one. There is a mistaken use of ancient forms in the carved flutings of the uppermost frieze, the strigil ornament taken from some sarcophagus; but this also may be condoned in view of the fact that sculptor as he was he dared not undertake architectural carving of would-be classical intent. The coupled pilasters of the upper story are hardly classic; in fact the pilaster in any form is a rarity in external architecture, so far as we know the buildings of Imperial Rome; and this feature was destined to be altogether characteristic of

[1] Archivolt: the outer vertical face of an arch; and, where there are several concentric arches, the general outer face of the whole group; that face which seems to form part of the wall in which the arch is built.

[2] Intrados: The under or concave face of the solid structure of an arch.

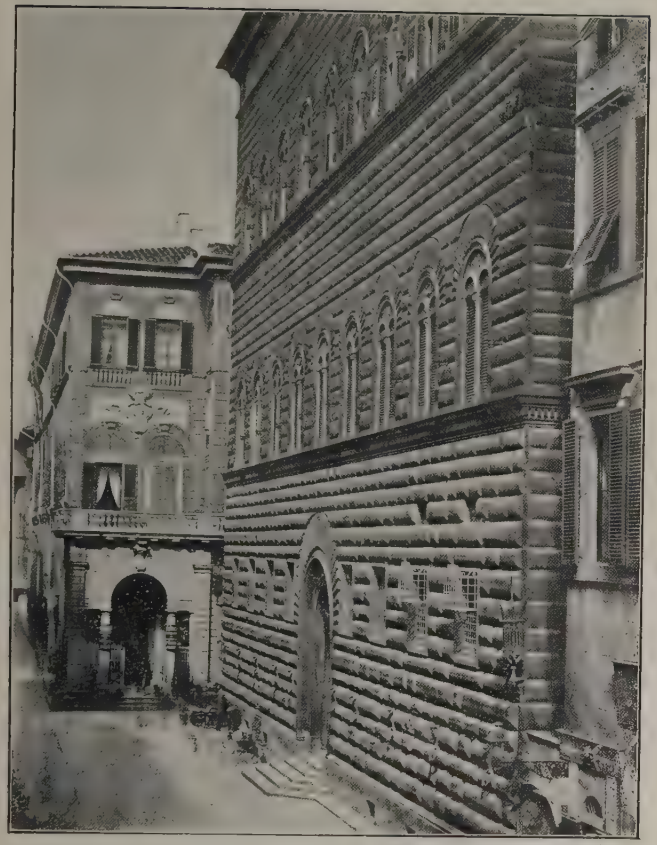
the Neo-classic architecture: but in first introducing it here, Filippo must have seemed to himself to be doing only what a Roman designer of the second century would have done had he undertaken so small and so refined a design. We are not to forget that it was huge monuments, the Pantheon and the Colosseum and the basilica of Constantine, which the Italian masters had to study when there was question of general dispositions. They had indeed something which we have not in the as yet unspoiled interiors of certain structures on the Palatine Hill and near the Forum: but they can hardly have had many examples of design on a small scale —of the best architectural treatment applied to buildings of very small size. This portico cannot exceed thirty-five feet in total height and its length is not much greater: there cannot have been many jewels of refinement like that left among the ancient ruins of Italy, even in the first quarter of the fifteenth century.

So far, the revival in architecture was

conducted along lines of common sense, and when the scholar and humanist, Leo Battista Alberti, came to the front as an independent designer of architectural compositions and created the front of the Rucellai Palace, (Plate XLIV) which was begun in 1451, he added the flat pilaster of slight relief to a well-known type of house front. The curious thing about this introduction of the pilasters is that no sooner was it seen than it was disliked, at least in the front of the palazzo, with its round-arched window-heads. The Palazzo Pitti had been begun by Brunellesco himself and without any pilasters at all; then came his rival's Rucellai front, and thirty years later we are back again at the old standpoint, and the Strozzi Palace (see Plate XLV) and the Medici Palace (afterwards Riccardi) are buildings without these seemingly inappropriate additions. It is surprising to see how much common sense there was among these early lovers of the antique grandeur.

The use of the northern style, the pointed Gothic, with its ribbed vault and its pictur-

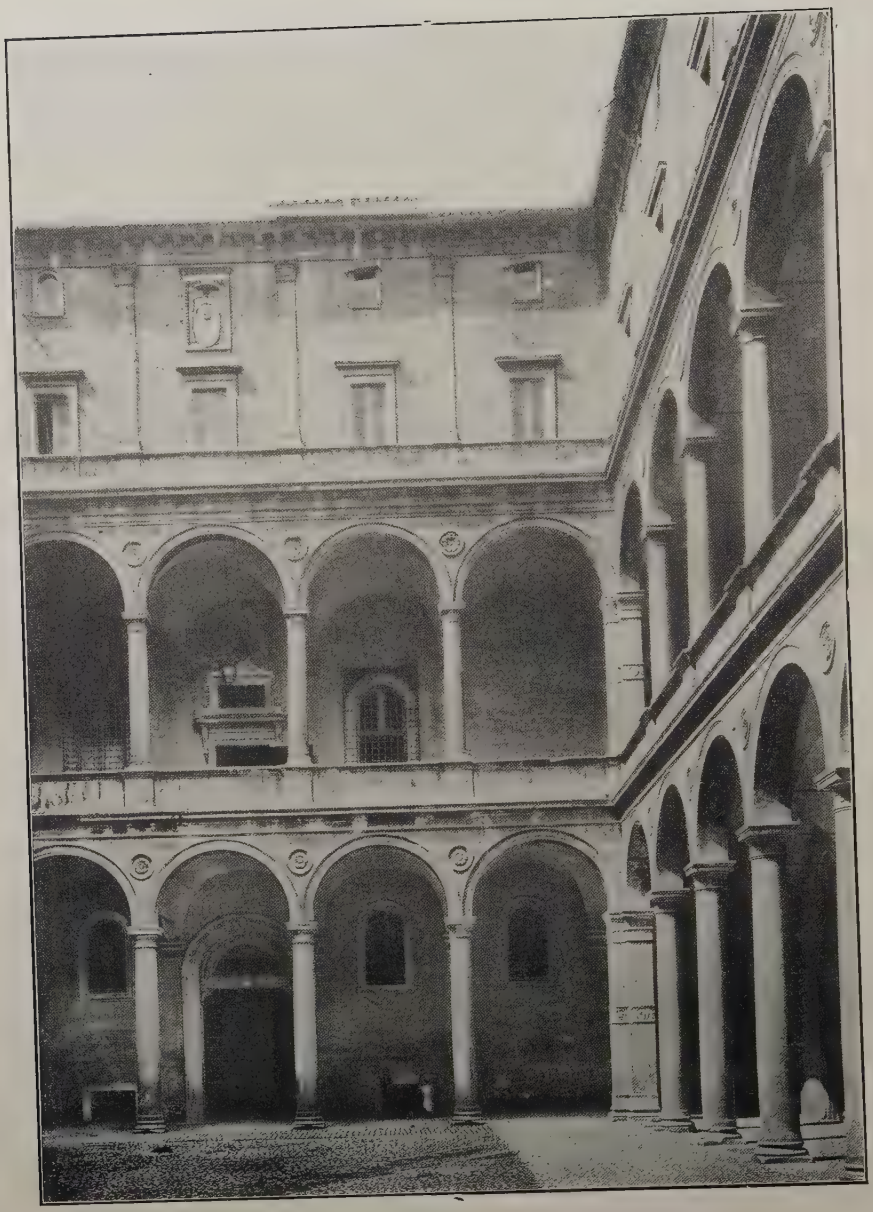
esque treatment, ceased altogether in Italy with the first examples of revived classical architecture: but not on that account did the ancient Roman way of building come into favor, nor did the Roman methods of design succeed without a struggle. Plate XLVI shows the courtyard of the Cancellaria in Rome, which can hardly have been built before 1475; and contemporaneous with this are many exquisite porticoes of similar design, porticoes in which the vaulting springs from the capitals of the columns; and the outer ordonnance—the seemly ordering of parts which had become to the Italians of the fifteenth century as important, relatively, as it had been to their ancestors eleven centuries before, very unlike the ordonnance of those ancestors. Only on the rarest occasions did the Roman architects of the classic period build in this way, with the arches springing from the capitals directly. The complete Roman Order is indeed seen side by side with this modern type. Plate XLVIII shows the interior court of the Palazzo di Venezia in



PALAZZO STROZZI, FLORENCE, TUSCANY.

PALAZZO RICCARDI, FLORENCE, TUSCANY.

PLATE XLV.

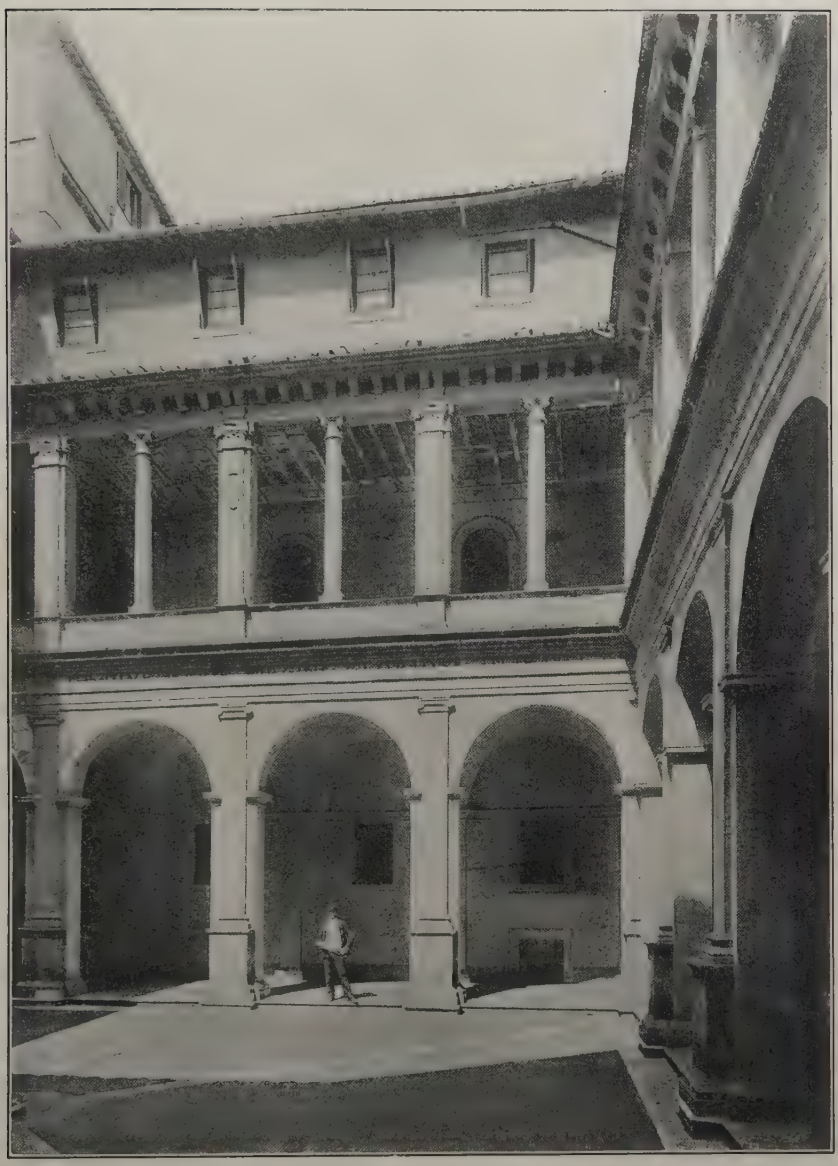


PALAZZO DELLA CANCELLARIA, ROME. COURTYARD.

PLATE XLVI.

Rome, the date of which is always given as 1460, and here is the Roman Order indeed! Here is the complete reproduction of that most singular system of design according to which the engaged column, known to be a mere ornament or with a constructional utility limited to this slight thickening of the pier at that point, is made to look like the chief supporting member; while the arch which really does the work is treated as a subordinate filling of the panel between. This curious device, invented when the Romans of the Empire wished to build freely and yet to design as the Greeks designed, brought up again by their imitators in the fifteenth century and never abandoned since, has so passed into our modern life that we neither know nor see its inconsistency. A designer who might have a strong sense for the constructional in his work would find it impossible to reproduce this motive: on the other hand, those many designers who are sincerely enamored of the traditions of the schools accept it as one of the necessary features of great and

dignified classical architecture. It is curious to compare with the examples just given that shown in Plate XLVII, in which the ground story arcade is classical Roman, except that a very shallow pilaster is substituted for the engaged column and in this way becomes a confessed ornament, while there is no definite archivolt furnished the arches between, so that the pilaster remains the single decoration of this story; while above, the most realistic method possible has been followed. Except for that odd little doubling of the consoles above the larger piers, this upper story is as logical and obvious as if it had been built in France in the thirteenth century. The lintel-course, resting alternately upon these larger piers with their pilaster-like treatment, and upon the small and slender columns of completely Renaissance design, carries in its turn the roof timbers and the gutter in front of them, and that is all. There is absolutely no pretense about it; no affectation of being that which it is not; and the combination of the two stories has



CHURCH OF SANTA MARIA DELLA PACE, ROME. CLOISTER.

PLATE XLVII.

PALAZZO DI VENEZIA, ROME. COURTYARD.

PLATE XLVIII.

resulted in one of the loveliest pieces of composition in Italy. The date of this charming design, the cloister of S. Maria delle Pace, may be set as the first decade of the sixteenth century. Fashions change even in neo-classic architecture, and when the Palazzo Borghese was under consideration in the last years of that same great century, the coupled column was in use as a favorite device. Long afterwards it appeared in Paris, adorning the famous eastern front of the Louvre; but here, as early as the days when Queen Elizabeth and her nobles were resisting the Spanish Armada, the coupling of the columns, almost unknown in antiquity, and never a device of the Rinascimento, finds itself in complete favor in that which we call the Classicismo.[1] Indeed this portico and loggia, Plate XLIX, has little real classical feeling about it, except the care with which the simpler Order, Tuscan or modified Doric, is kept in the ground story, and the Ionic

[1] Classicismo: The epoch of close study of antiquity, 1520 to 1570.

Order above—the proportions of those columns being also carefully observed. The reader will hardly ignore the coldness of the design, the absence of flavor and freshness which marks it: the designer is so very sure of his methods and so fixed in advance as to his intentions that there is no longer any trace of the Rebirth left. If we cross the Alps, we shall find in buildings of this time the Renaissance in its full glory, but the Renaissance in France is nearly a century behind the Rinascimento in Italy.

PALAZZO BORGHESE, ROME. COURTYARD.

PLATE XLIX.

CHATEAU AT BLOIS (LOIR ET CHER), FRANCE. WING OF LOUIS XII.

PLATE L.

CHAPTER VII

LATER REVIVED CLASSIC DESIGN

In this chapter we must consider an epoch of transition for northern Europe. Chapter VI dealt with the time of change in Italy; but there was only a brief era of transition there, so rapid and direct was the change. The Italians were ready to accept an imitation of classical architecture, in the hope that the real classical architecture would follow. No matter how poor the imitation, how inadequate the study had been, to the Italians it was so natural that architects should study that which they, the Italians, had always considered the best architecture, that they were willing to forgive mistakes. In the North things were as different as possible. The mighty Gothic school was as vigorous and full of energy as it had been at any time since the middle of the thirteenth century, that is to say, since

the day of its first brilliant culmination: and every one, every mason, every carpenter, every bishop or abbot, every noble or great officer, knew what a building or a detail ought to be without asking the opinion of any student of the Roman past. The North, generally, was as reluctant to admit the importance of any such studies as the South was ready to insist upon them. So it was that only the bodily transportation of the court for many months from France to central Italy, and this at a time when the Risorgimento in architecture was at its most glorious height, could suffice to turn the nobles of the court to care for the stately methods of design introduced by the modern students of antiquity. It was in 1494 that Charles VIII started for Rome: for five years from that time the nobles of his court saw much more of Italy than they did of their own country. They came back little by little, after the accession of Louis XII, full of the glories that they had seen. To them it was evident that the Italian palace with its grandiose staircase, its stately

ordonnance of windows on the front, its dignity, its rather cold reserve, was more worthy of a prince than the more homely and natural buildings they had left behind them in France—buildings which were of the same style and spirit as the village churches, and of the houses even of the less wealthy citizens.

And yet there is a living proof of the difficulty which even at this late date the classical styles had to establish themselves in France. Plate L shows that wing of the château at Blois which was built about 1500 and which is called the wing of Louis XII. Plate LI shows the adjoining stretch of building, that which was built about 1525 and which is known by the name of François I. In the earlier wing shown in Plate L, although the Italian war had been going on for years before a stone of it was laid or cut, there are no signs of any study whatever of classical details. The building is what it would have been had there been no invasion of Italy by the preceding king—had no French nobleman

dreamed of bringing home Italian workmen and Italian ideas. The pointed arch is pushed to one side and replaced by the three-centred arch and by the lintel, but altogether from reasons of convenience, and without the slightest thought of pleasing thereby the students of antiquity. The high and steeply pitched roof remains, the simple and obvious fenestration with openings put where they are needed, and only a secondary reference to delicacies of proportion; the uneven lengths of the quoins and *chaînes*[1] of the window jambs, the traceried parapet and sunken panels, and even the foliated sculpture, all is of the middle ages; nor is there anywhere a pilaster, a classical column, or the suggestion of an entablature.

So in the building of the next reign, that of Francis I, shown in part in Plate LI, the progress of study towards antiquity is visi-

[1] Chaîne: In French, a system usually vertical of larger and more perfectly dressed stones in a wall of lighter or rougher material. Thus the quoins at the corner of a building and the alternately long and short stones at a window opening or door opening are chaînes, but the same device may be used to stiffen a long and unbroken wall.

ble. Here there are pilasters but such as a Roman of the empire would have thought very odd ones, and, in a way, there is an entablature between the second and third row of windows; and so the capitals have a little touch of the Ionic style, at least in the flat wall to the right of the great staircase. But in every respect, in the high roof, the huge and richly ornamented chimneys, the free treatment of the fenestration, the still more free and easy handling of the staircase, with its ramps and openings treated with an obvious eye to spirited effect, and with but little care for classical gravity of proportion, all is still mediæval. The reader will understand that the arches on the left of the staircase, with Roman engaged columns between them and the entablature which they carry, were an addition of the time of Gaston of Orleans, about 1640: all this has been swept away by the restoration under Duban: for the object of that restoration was mainly the putting of these two great divisions of the palace into the state they

were in in the reign of Henry III, for instance, when the States General were held in one of its great halls, namely, the one of which a small part is seen on the left in Plate L.

The student, as he approaches either of these interesting buildings, has to remember that the style of the earlier one, Plate L, was compelled to make room for the newer style, as that in its turn was soon out of fashion and was replaced by the more severely classical buildings which are mentioned below. The evolution was not perfect, the growth was not merely natural and inevitable, the style did not ripen, growing slowly from point to point of development, from simpler to richer, from less to greater pitch of complication. It was the constant influx of fresh appeals from Italy and from Italianized travellers, sometimes nobles of the great court, like the Constable of Montmorency, sometimes princes of the church, like the two cardinals of Amboise, and sometimes scholars only, humble students of Greek and Latin,

CHATEAU AT BLOIS (LOIR ET CHER), FRANCE. WING OF FRANCOIS I FRANCE.

PLATE LI.

CHATEAU OF ECOUEN (SEINE ET OISE), FRANCE, COURTYARD.

WOLLATON HALL, NOTTS, ENGLAND.

PLATE LII.

like Rabelais and La Boétie. The next step was taken by that very Constable of Montmorency, who, being then at the height of his wealth and influence in the State, began the new château of Écouen, after 1540—an early date, but the work was put into the hands of an uncompromising classicist, Jean Bullant. Plate LII shows a part of this château, the flank on the right hand as one enters the great court by the chief gateway. Here the classical orders are more at home, and although the high roof, the monumental chimneys, and the huge and towering dormers are still of the French Renaissance proper, with but little direct Italianate influence, it is easy to see how everywhere in the mouldings, in the larger details, the classical feeling of the architect has had its way. Even his dormer windows, picturesque, and, in a way, mediæval as they are in design, have pilasters and a Doric frieze, all approximated in their proportion to the classical standard. As for the main wall, it only needs a glance at the portico of columns in

the middle of it, to see how the proportions of those two orders have swayed the design from end to end. This front, except the two dormers in the middle, which are later, is very nearly of the same date as that building which is shown in Plate LI. But the transition to neo-classic art is much farther advanced. The student will see in these disciplined details, this systematic spacing and shaping, the beginning of that tranquil and rather slow evolution which is seen again in Chapter VIII.

The generally chronological view which we are taking of all these changing styles, is a good help to memory, and through this, to swift and almost instinctive comparison. It helps the student also in his search for causes. In this way it becomes curious to note what the English were doing at the time that the classical Renaissance was thus safely begun in France; with Spain in the lead, Flanders (influenced by Spain) alongside, Germany only a little behind. The English were building the Tudor and Elizabethan country houses. Those built of tim-

ber with filling of masonry between the timbers belong to an old system of construction once as common in the northwestern parts of the Continent as in England: but those of more pretension have generally some slight invasion of forms derived from Italy mingled with the Tudor or semi-Gothic design. Thus Wollaton Hall, of which the principal front is shown in Plate LII, dates from a time later than Écouen, but it is a long way from the classic feeling shown in that stately edifice. We are not to compare it with any classical standard; we have to consider it abstractly, to note its merits as an exterior, expressing the use of the building and its character as a residence, and a certain abstract charm, as of propriety, which invests it. The huge windows are a mark of the time; they express the joy which all the more intelligent classes were feeling at the new cheapness and accessibility of glass: and it is noticeable how well the difficulty is met, how much more useful are the pilasters here than when we found them in Florence. (See Chapter VI.) The great

building is not left a mere lantern: the opening up of the walls is almost as successful as we found it in the Gothic churches. (See Chapter IV.)

As noted above, the English cared less for vaulted roofs than did the people of the Continent. They developed a splendid system of decorative timbered construction, of which the finest mediæval example is the roof of Westminster Hall. Nearly two hundred years later than that splendid roof is the almost equally fine piece of timber work which covers Middle-Temple Hall, Plate LIII. This Hall shows us also the finest possible screen of Jacobean architecture. These screens were used when the plans of buildings were simple, when the great Hall of a country-house or a college or the building of a company of merchants filled the whole of the pavilion devoted to it, occupying all the space under its roof and within its four walls. To make a vestibule of entrance for protection against the cold and against undue publicity, the screens were built athwart one end of the interior space: and their

HALL OF MIDDLE TEMPLE, LONDON.

PLATE LIII.

CHURCH OF THE THEATINER MONKS AT MUNICH, BAVARIA.

DUCAL PALACE. GENOA. ITALY.

PLATE LIV

upper stories formed galleries of communication between the smaller buildings to left and right. We are to consider this room then as the meeting-room and dining-room of a great number of companions and associates whose semi-privacy would not be invaded too seriously by the coming and going behind the screen. So much for the fitness of the building for its purposes: as to other considerations, the vigor of design, both in constructive and purely decorative members, hardly needs demonstration.

In Italy, the changes between 1550 and the close of the seventeenth century are to be found generally in the way of increasing formality and a declining sense of the beautiful and the fit. And yet throughout this decline, there is seen the Italian feeling for composition. The Italians, though never a great building people—never originators in building—have always, since antiquity, known how to make fine designs—how to work with but little detail, how to handle that little with good effect, how to avoid solecism.

In this connection it will be well to study the Frontispiece. The great church of San Pietro in Vaticano was begun very early in the sixteenth century, to replace a very early basilica. Bramante (Donato d'Agnolo: called also Donato Lazzari; d.1514) one of the most renowned of architects, made designs for it. He worked out the plan again and again in many forms; and achieved so much actual success that the great piers intended to carry the cupola and the pendentives above them were nearly completed, and the principal apse —that of the western end (for in this church the orientation is reversed)—was vaulted during his lifetime. After that time there were seemingly endless delays, unceasing controversy, never-ending changes; but the model of the cupola was completed by Michelangelo Buonarroti, and the cupola itself carried up as far as the top of the great drum below the rounded shell before the death of that great artist in 1564. Michelangelo, then, must have seen the church, in his imagination, almost exactly

as it is shown in the Frontispiece. To any one who approaches the church from the city, crossing the bridge of Sant' Angelo and walking up the Borgo to the Piazza San Pietro, the aspect of the building is altogether different; for the late additions, the unfortunate entrance-front, and the still more unfortunate long nave, mar the effect; the first by its absolute inferiority as a design, the second by its concealment of the cupola which, on that side, can only be seen when you are at least a mile and a half distant and halfway up the slopes of the Pincian Hill.

It has seemed worth while to insert this little bit of history, because such considerations of chance and change or such balancing of the qualities of different succeeding designs and their makers are inevitably part of every great and costly building; such a building as strains the resources of a nation or a church—such as takes, and must take, years in its completion. St. Peter's cannot be judged in a morning nor qualified in a paragraph. There is in it

the work of the masters of the Risorgimento in its very highest flight, and there is, more visible, the work of the artists of the Decadenza—of the better and the worse men, of the greater and the more ignoble epochs. A building so vast and of such prodigious variety can only be judged as a landscape might be judged; its details taking shape only after hours of patient looking, and that with a practiced eye.

It will generally be admitted that the church as seen in the Frontispiece is far more attractive than it is when seen from the East; also that the great Order of pilasters, 112 feet high, resting upon a basement of eighteen feet, is too colossal even for the "colossal Order"—the separate pilasters showing too much like towers of masonry and requiring a different architectural treatment from that which they received as mere subordinate details; that the design suffers from the absence of the complete group of minor cupolas, of which only two out of the four have been erected; that the great attic is too heavy even for

the lower architectural story made up of the colossal order, and this very largely because of the dwarfing of that lower architectural story by the windows of the actual stories within giving the lie to the chief ordonnance, and cutting up that vast and mountainous exterior. All this will be granted generally by most students of European architecture as a whole rather than of one school or one epoch; and those students will also be of one mind as to the dignity of the whole group and as to the beauty of the cupola, drum and shell together, effective without and extremely beautiful when seen from within. Those who regard with an especial love the delicate architectural sculpture of the fifteenth century will find the huge church hard and cold. Those who care for reason and for intelligent growth of design out of building will care for it, while admitting its lack of charm, for it is of thoroughgoing masonry throughout, and what it appears outwardly to be that it really is. As we get to know it we find that the colossal order and the rest

of the clumsy adornment within and without are mere excrescences, hardly affecting the massive pile. The cupola is one of the very few in Europe which have no wooden building-out to a metal outer shell: like the Pantheon and Florence cathedral and the smaller dome at Constantinople, it is of solid masonry within and without.

CHAPTER VIII

EIGHTEENTH CENTURY DESIGN

In rather less than a century from the beginning of the Risorgimento all play of fancy or vivacity had gone out of the designs of the Italians. As early as 1510 there is little left except reserve and a dignified rejection of all exterior ornament which could be spared.

A very similar result is seen in the North as well; and here also it comes within less than a century of the complete establishment of the classical Renaissance in France, Germany or the Low Countries. It began in the North, this classical renascence, about 1510, and was well established by 1525. Accordingly, as early as 1600, the independent and vigorous life has gone out and it becomes an architecture of the decadence. Now, it is not to be assumed that decadence is the same thing as decay. Decadence

in fine art is a term applied to the slow, and often very interesting, decline from the highest pitch of enthusiastic work and of combined energy and good taste. Defined in this way, there was a decadence of Roman imperial art from the reign of Trajan; or, as some would have it, from the reign of Vespasian. And yet what noble things were built even more than two hundred years after the later of those two dates! So there was a decadence in Gothic art dating from the middle of the thirteenth century; for everywhere there was a replacing of the energy of the new style by formality, by regularity, by the constant repetition of closely similar parts: and the pride of the skillful builder carried it over the refined taste of the artist. And still we have to remember with admiration and amazement such wonderful conceptions as the church of Saint Urbain at Troyes (begun after 1265), such masterly combinations as those of Saint Ouen at Rouen (begun 1320), and all the finer buildings of the florid Gothic in France—of the perpendicular architecture

with fan vaulting in England. All these are works of the decadence, and what is needed is the substitution for the term we are using of another term which shall not sound so much like our English word, "decay."

In like manner, there is decadence in the South from 1510, or thereabout,—in the North from a point of time eighty-five years later, and this decadence continued until the whole ancient world of traditional art was destroyed in the stormy time of the French Revolution. Since then, there has been neither decadence nor growth, but a bewildering series of experiments, none of which have as yet brought the world into a state of wholesome and natural progress in the arts of decorative design, that is to say, of design based upon structure and utility. Decadence in the South, then, lasted for two centuries and three quarters: in the North it lasted nearly two centuries. It stands to reason that during such long spaces of time there were ups and downs, periods of more rapid decline, periods of at-

tempted restoration, of almost a new birth. Thus, there are fantastical and baroque designs as early as 1620 in the North, and much earlier in the South: whereas, in either case, fine, pure, stately buildings were erected at a much later period; still, the general tendency is from the more simple and more reasonable to the more extravagant; and this from the natural desire of the designers to try something new and not to be fettered too closely by the traditions of neo-classic design. There was, of course, a reaction from that greater freedom, and the boldness of the men of 1720 and thereabout was offensive to their successors who established the latest neo-classic with its Roman colonnades and a general absence of other details of interest.

Some part of this twofold tendency—of this revolution and counter-revolution—this drag towards an unseemly lack of dignity and quietness, with the inevitable pull backward to a more tranquil method of design—is to be seen in the church of the Theatiner monks, at Munich. The local

authorities, which seem to be trustworthy, say that this church, which is dedicated to Saint Cajetan, was built in 1675, except the front and the towers, which are later—the date usually given being a century after the completion of the church, though this can only apply to the upper stories. As long as the low buildings, the three-story houses with not very lofty roofs, remained unaltered, the view of this church from the Ludwigstrasse (as in Plate LIV) or from the Square in front of the theatre, looking over the houses between, is one of the most impressive to be had anywhere when a single building is under consideration. The proportion between the dome and the two towers, and secondarily, between the towers and the front of the clearstory raised high between them, and between this, with its long nave roof, and the cupola, again, is uniformly beautiful. In our American cities we can only secure such a result by building at great, and generally impossible, cost, on a free open plot of ground: but for a town or a neighborhood in which the

height of the houses could be guaranteed for a term of years, no better type of metropolitan church can be imagined. You cannot get away from its towering masses; from far and from near they are alike impressive. Whatever reluctance there has been to admit and insist upon the beauty of this church is caused by the inferiority of its details. Let us, therefore, consider those details. In the first place, for the cupola itself and the drum which supports it there would be a general acceptance of it as sufficiently of the graver style to which it belongs, that which the Germans call the Hoch-Renaissance, except for some part of the copper lantern at the top which smacks of a less pure style. But when the towers are considered, then there would be a general rejection of that treatment of the pilasters which causes them to appear as members, only, of a continuous group of vertical mouldings, emphasizing the corners, but also out of keeping as parts of a recognized neo-classic style.

Such pilasters as these do not come into

any Order which you can reproduce from the pages of Vignola; nor would the curious entablatures forming three horizontal string-courses on each tower, and two on the church front, proper, be accepted as forming part of any systematized and intelligible order of architecture. The liking and disliking of such details is very largely a matter of fashion; and the difficulty is with all such questions concerning the mere adornment of architecture without regard to its structural essence—that when a style, a detail, a method of adornment, is out of fashion, it often seems offensive to those who are working in the fashion; even as the most elegant coat or the most elegant ball-dress of 1840 is a monster of ugliness to-day and would be thought to disfigure the elegant man or woman who might endue it. There is a large building in New York, the butt of endless ridicule, which is nevertheless extremely sensible in its dispositions, well arranged, well lighted, well imagined for its purposes. But the unlucky adoption of a style of design not un-

like this of the Theatiner towers has prevented it from receiving even a moment's serious consideration. By 1920 it may be respected, and even admired as the premature attempt to introduce a style then popular. The view to take of such a design is, then, that which we would take of a work of art whose epoch we did not pretend to know. It is a good rule for collectors of expensive works of art of the portable kind, *objêts de la haute curiosité*, not to worry about dates or makers unless the things belong to a well-known and much studied class. If it concerns prints from engravings by Aldegrever and Paul Potter, or signed enamels by the sixteenth century masters, or by Petitot, it may be worth while to be sure of your authenticity; but it is also delightful to decide to buy the Chinese porcelain, the unsigned fifteenth century drawing, the Italian peasant pottery of the eighteenth century, and before, without other voucher than the beauty of the piece. He is the safest in his collecting who holds firmly to his own sense of what is lovely

and intelligent in decorative art, recognizing this mark of authenticity as at least equal to signatures and perfectly ascertained dates of fabrication. So to a certain extent with works of architecture. It will never do to dismiss an attractive, and perhaps even an impressive, building with the judgment easy to be gathered from the guidebooks, that this is of a late date, or a corrupt style, or was designed by a master of the baroque in art. That very word baroque means originally an irregular pearl, a pearl so remote in shape from the perfect sphere that no respectable jeweller would set it in an earring or pierce it for the necklace of a millionaire's wife; but the artistic jewellers of the old times would take those irregular pearls and put heads and tails of gold with touches of enamel to them, producing abnormal birds or indescribable monsters, most admirable for decorative jewelry. If there were an opportunity in this brief inquiry to consider interior decoration, we should find that the domestic buildings going up in France, even while

these towers were in the way of completion in southern Germany, were admirably designed within. The beginnings of the Rocaille [1] are of this time; and the Rocaille system of design is as attractive in its best examples, in the delicate goldsmith's work, ivory work, and varnish painting, of 1750, as any courtly and magnificent system of adornment ever used among peoples of European descent. Of course the European designer has a heavy touch if you compare him to a Japanese artist of an equivalent rank: of course an uninterrupted development in a certain line of decoration at last leads to bad taste and violence. The point is the simple one that even those styles which are considered fair game for ridicule and are hardly treated with grave consideration are charming in their more perfect monuments. It is only the rational styles based on structure, which in architecture

[1] Rocaille Decoration: That which had originally a rough imitation of natural rock forms mingled with shells; a fashion passing rapidly into scroll-work in relief, giving very peculiar shapes to panels, doors, window-casements and even to details of masonry. The rococo style is partly based upon rocaille decoration.

have any uniform greatness. It is only a real style like the Egyptian of 3000 B. C., or the Grecian-Doric, or, so far as we can judge, the Roman of Augustus, or the Gothic of Central France, or any derived and self-conscious styles of the neo-classic Renaissance, such as are based upon a new system of planning like that of the sixteenth century chateaux, or a new system of roof building like the fan vaulted interiors of England (three or four of them only); it is these alone which are always fine and great; all other styles have not only their ups and downs, their rise and fall, they have also their normal and, therefore, respectable, but moreover their abnormal and fantastic compositions.

Plate LV shows the front of a well-known building in Turin, and here architectural detail has been so handled that it is indeed a disfigurement. If the reader will look past the astonishing window casings and the really hideous filling of panels like those in the pilasters of the basement, he will see a well understood front. There is

a high architectural basement, containing the basement story proper and a mezzanine; a grand story with the order, containing three stories of the interior, the pilasters well proportioned and well placed; and above this, a high entablature planned for the whole front with a story of rooms in it, and another story of rooms showing in little dormer windows above the cornice. Here are six "flats" of rooms, all abundantly lighted, and yet the front has been laid out in such a way that it has all the elements of a very imposing and stately structure. Even the singular soft rounding, with a plan made up of several curves, of the projecting central mass which includes the porch of entrance, is capable of perfectly dignified, and even stately, treatment. The appearance above of the great rotunda which holds the staircase, completes the composition of this central mass, and leaves one regretting that it might not be given to some modern designer of good taste, and a hard hand on the vagaries of his assistants, to work out

the problem of this curious central mass, so manifold and so capable of unity. But, now, if one leaves for a moment that abstract way of regarding the whole front and allows those window casings to secure his attention, why then all is lost, of course: one cannot be expected to stand very long in front of such a building; it is a monster, but it is that merely because of the exceptionally ugly and wholly unreasonable gimcracks that are stuck all over it. If you should take the Hermes of Olympia and dress him like those "fantasticals" at an old-fashioned Paris masked ball, you would no doubt produce a very unsightly object and it would take the eye of an expert in human form, a sculptor, namely, to discover the beauty of the figure within.

That Turin building is of about 1690; see now what the reaction brought forth and what gravity of design was possible to the artists of thirty years later in the same city! There seems no doubt that this front of the Palazzo Madama (see Plate LV) was built by Filippo Juvara about 1715. To

look at it is a rest indeed after the enormities of the Palazzo Carignano: and yet even here one finds himself wishing that the wretched device of carved trophies of arms, as the single motive of the exterior sculpture, were absent here. Sculptured ornament was beyond the strength of the eighteenth century: when they tried to introduce it, then the result was a failure. It is with relief that one looks at the front, Plate LIV, of the Ducal Palace at Genoa, which front seems to have been built by Cantoni, a well-known reformer in architectural style. The tendency has been through the whole century away from variety, away from the unexpected and the surprising, away from all external ornamentation, whether in color or in sculpture: the wheel has come full circle and there is nothing now entertaining or attractive in the details of the front, except only the neo-classic column with its accompanying entablature. The columns may be arranged in a continuous row or they may be coupled, as in the case before us, or they

PALAZZO CARIGNANO, TURIN, PIEDMONT, ITALY.

PALAZZO MADAMA, TURIN, PIEDMONT, ITALY.

PLATE IV

EXHIBITIONS BUILDING (KUNSTAUSSTELLUNGS-GEBÄUDE), MUNICH, BAVARIA.

GATEWAY BUILDING (PROPYLAEA), MUNICH.

PLATE LVI.

may be grouped in other ways with a nearer and a more distant placing, especially when they are "engaged" or partly built into the solid wall behind them. But however placed and however grouped, they, the columns, are the one decorative feature, the entablature acting in reality as their restraining limit, the needed link between them and the necessary structure. This building is of 1777. Ten years later the clock of the centuries marked that moment of time when architectural out-of-door growth was to stop and architectural transplanting and forcing were to begin. By that time in Paris, the centre of the architectural world for the eighteenth century, they had accumulated a number of very worthy buildings. The famous École Militaire, south of the Champs de Mars, was built about 1760, and the most accessible front of its principal mass has no artistic charm except that obtainable from the even succession of large windows, the well drilled, the exact, the highly organized lay out of a large front. The two admirable buildings

on the north side of the Place de la Concorde were built in 1765–70 and these contain the whole style, for they have the great free colonnades of the centre, the engaged columns of the wings, the high basement without any adornment beyond that feeble breaking-up of the surface which we call Rustication, and they have for all external sculpture the feeblest and most insufficient little carved frames of what look like round mirrors hung here and there. These are the two typical buildings of the time and they are typical too of the whole tendency of neo-classic architecture throughout the decadence, a tendency away from variety, away from movement and charm, towards gravity and dignity, but also towards cold uniformity, with nothing to break it except the semi-Roman Order, more or less well understood, more or less graceful in itself but having no real mission to fulfill and therefore not forming part of the organized and perfect whole which we call style in architecture. It has one fitness, however, for a hurried headlong modern civilization,

a civilization too busy with its physical development to spend much thought or much energy on the working of pure intelligence. This advantage is that it is so easy to manage. It is very easy to handle for those who can handle it at all. There is needed to make it sightly that good taste which controls the fancy and the memory, and prevents the designer from even recalling those well-known details and architectural effects which will not suit his purpose. Given such good taste, and a certain moderate acquaintance with the books, and designs as good as the best can be made with great speed and with perfect satisfaction to all concerned: nor does the designer need to go beyond the walls of his draughting-room to decide upon all things which are of first-rate importance to his conception.

CHAPTER IX

NINETEENTH CENTURY: IMITATIVE DESIGN

So far as architectural history is known to us there has never been since the beginning of civilization a condition of art at all resembling that which surrounded the people of the nineteenth century. There have been epochs of deliberate revival, not only the famous one of the fifteenth century in Italy, and the sixteenth century in the North, which we call especially the New Birth (see definitions, Risorgimento, etc.), but also some as important as that one, to the people concerned. There will be always such attempts in every epoch of self-conscious civilization. Under Hadrian, in the second century, A. D., there was a deliberate attempt at reviving the Grecian purity of style. Egyptologists know that traces are plainly to be seen of similar movements

2000 and 3000 B. C. In Byzantine art there has been much conscious restoring of archaic forms and methods. In France, in the reign of Louis XVI, there was a deliberate recall of the world of art back from the too loose and irregular, too fantastical and violent style of the mid-eighteenth century, to a graver and, as it were, purified taste. One peculiarity, however, marks all of these reasoned-out and deliberate, rather than spontaneous, movements: they succeeded, and the ideas embodied in them soon dominated the situation. There have been some abortive attempts at reform: but those which we cite as rebirths succeeded altogether. All the tendencies of the day, good, and not so good, went out towards the revival, and the change was accepted by the whole world of designers. Nor is it hard to see sufficient reasons for this uniform tendency, for this simple development of a new style, however introduced: the designers of the time and their more instructed critics, the connoisseurs or dilettanti of the day,

knew nothing very positive nor had even any special idea of any style of the past. There were no photographs and scarcely any books of historical record—no such books at all, indeed, if by historical record is meant an accurate account of the architecture of earlier times. Wealthy and influential men of the later years of Louis XV might have been divided into those who rather liked the fantastical style of the rococo and those who contemned it and would fain have had something more refined. The purists saw in the seventeenth century reproductions of Roman orders a finer taste than their own. That much help from the past they may have got, but the work they did in the course of their reformatory movements shows that they were pursuing a perfectly natural evolution of art with no more conscious guidance from their theories than that which led them towards more and more severe lines—more and more slender parts —more and more constructional methods of design. And as this movement was so

natural and easy we never think of it as a rebirth : by that term we mean something much more radical.

When, after the close of the Napoleonic wars, men began to breathe free again in Europe, it became evident to those who observed the tendencies of their own time that there was no restraint of tradition left—at least no restraint which was recognized by more than a small group of men, while another group of men equally intelligent, perhaps, rejected those traditions and set up their own standard. King Ludwig of Bavaria (reigned 1825–48) had studied and travelled before his accession to the crown ; he had purchased and brought to Munich the Greek sculptures from the temple at Ægina ; he had seen the buildings of the Italian Renaissance and admired them ; he was a comparatively unprejudiced dilettante with a liking for many styles, a sympathy for many forms of artistic thought. He and his architects started in his capital, Munich, the Ludwigskirche (Church of St. Louis) only a dozen years

after Napoleon's final dethronement, and the royal Library a few years later—each of these being in a kind of Southern Romanesque style without columned porticoes or other attempts at classicism. The Allerheiligenhofkirche (Court Church of All Saints) is of the same character of design with a somewhat more frank observance of Italian models. The Old Pinakothek was begun in 1826, contemporaneously with the Ludwigskirche, or nearly so, but this building is a careful study of the Italian Renaissance. The southern front of the Royal Palace, the Königsbau, is again of the same year as to its commencement, and this also is studied from Florentine fifteenth century palazzi. The north front of the Post Office, directly opposite the Königsbau, has a Florentine loggia of thirteen arches—fifteenth century style, not badly carried out. The Glyptothek is the earliest of all: it was begun before Ludwig's accession, and almost immediately after the restoration of peace to Europe, and the outside of this was meant to be as Greek as it was possible for

a modern designer to make a building. Within, it had indeed to resort to the non-Greek device of vaulting, to cover its large halls: but it was still of Grecian taste in its details. The Valhalla, by which term the King designated a Temple of Honor built on a noble hill by the Danube, above Ratisbon, is of the same epoch and of the same deliberately Hellenic character of design; a really fine exterior, studied closely from a Doric Temple of the best period. Another such temple of honor stands at the southeastern edge of the new town of Munich, the Ruhmeshalle (Hall of Fame), begun in 1843, and as completely Greek as the two others. The basilica of St. Boniface was begun in 1835 and is a most faithful study of the later basilicas of the pure Latin style, that is to say, a basilica of the sixth or the seventh century. To complete the circle of the styles from the fifth century B. C. to the sixteenth century A. D., and to cover all the important styles which mark the circuit of those two thousand years, there was built in the Au suburb a Gothic

church as completely in the fourteenth century spirit as the intelligence of the builder would enable him to make it. Roman imperial art was not represented, for the scholars had hardly begun to differentiate it from the pure Greek: and for some such reason, probably because the Germans have always been inclined to use the term "Byzantine" for all round-arched mediæval work, the King's advisers made no attempt at a piece of rugged northern Romanesque: but all the other epoch-making styles of Europe were included in the enlarged capital city.

All of these imitations are as careful as possible. If in any detail the style imitated has been abandoned, even for a moment, it has been with a feeling of "needs must"; no pains have been spared to keep close to the ancient spirit. The interior is what is fine in the basilica of St. Boniface and it is a favorable way of regarding this epoch of copying to take this building as our example, because the construction and the system of design are so very simple, so easy to

grasp and to imitate, that nothing more than a delicate care for details and the power of reproducing them is needed. The mosaics and the paintings of the interior are indeed not equal to those of a great Roman basilica, either in its original state or as it has come down to us; the painters and designers of the time were not competent to reproduce those; a critical judge would say that the carving of the marble capitals lacked something of initiative—something of energy; the general effect of color of the interior, though far from unpleasing, though even agreeable to the visitor, may be thought much less noble than that of a fine Italian church. And yet this is one of the most attractive interiors in Europe, and one may visit it many times during a season and like it better all the time. It is to be heartily enjoyed, and yet when there is a question of its artistic merit as a design, the favorable comment is much less unreserved. For what have we to admire? Only sympathy in observing, and fidelity in reproducing, monuments of the past. Do we feel

as we speak the word "only" that such sympathy and such fidelity are so rare that they deserve very hearty recognition? That may be, and yet the praise given to the architectural effort may be not great. It is not by sympathy and fidelity alone that great designs are made.

Let it be admitted that if the architects of all Europe had been so delighted by this, or by some similar undertaking, as to begin to work, altogether, in the Latin style—to build all their churches in that style and to study the problem of designing civic buildings, and dwellings also, to correspond—a new style and a worthy one might have originated. Let that be admitted: the failure of the nineteenth century has been in the absence of any such unanimity. No great body of architects has ever agreed on what was to be done. There has always been a competing school, a rival school, sometimes several of them, armed with reasoning and enthusiasm as strong as that of the school in question and prepared to beat down its feeble growth.

Or let us take the Glyptothek, a composition as completely Greek as the feeling and the perception of the day enabled the architect to make it; are we to take the shafts without flutings, which seem to be called for, as so many violations of Greek verity? In all Grecian art, moreover, there are no round-headed niches, that is to say, niches covered by semi-domes, because there are no arches therein. There are no frontispieces made up of an entablature, a pediment and two pilasters, used for mere ornament and surrounding a round-topped opening. There are no entablatures constructed with flat arches which replace, or, as in this case, relieve a flat lintel composing the epistyle. None of those things are Greek: and yet it is clear that Klenze meant to be as Greek as Ictinos. Let us compare with that front the façade which immediately confronts it from the south side of the broad Königsplatz, the Exhibition building, finished about 1840. (See Plate LVI.) Here is a building which is more purely classic than the Glyptothek in almost every respect, Roman rather

than Greek in its proportions, in the free use of the Corinthian column, very elaborately worked, in the free use of pilasters with sculptured capitals, in the employment of carved modillions: and yet it is more truly Greek in its mouldings, which are studied with extreme care, and in the absence from it of such violations of archæological accuracy as those already mentioned with regard to the Glyptothek. It would be thought by many to be a finer design, attracting less attention merely because not the home of a very important collection of classical sculpture, and a mere shelter for temporary exhibitions of modern art.

The Propylæa (see Plate LVI), also at Munich, is the most nearly Greek of all, for even its use of details not known to us in ancient work, is very careful and marked by perfect feeling for the style. It is, however, only a gateway of honor: and in that capacity it has been easy to treat. The designer, Klenze, deserves credit for not having copied some one of the ancient gateways more closely, so as to avoid responsibility.

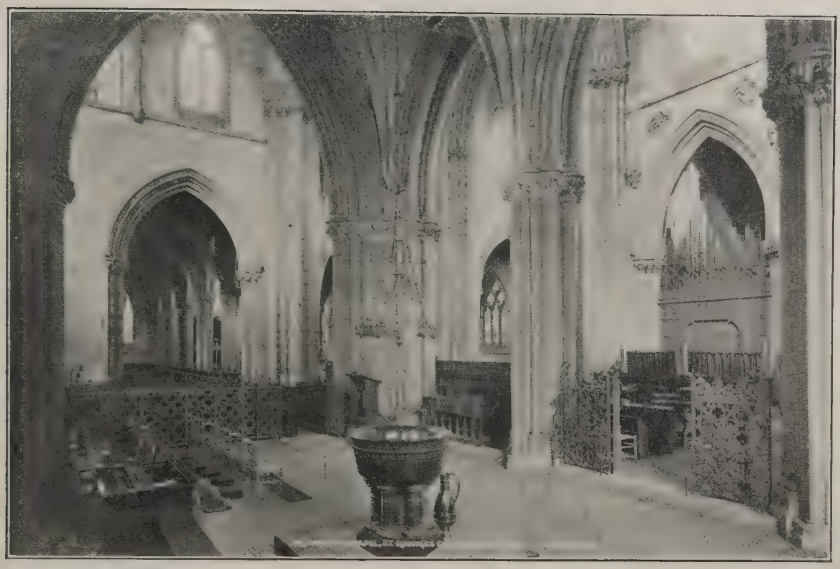
It is impossible to escape from this method of criticism. You cannot judge of these nineteenth century buildings without asking whether they are or are not faithful copies of some structure of the sixth century, A. D., or the fifth century B. C., or of whatever epoch of the past. Those who deprecate the unfavorable character of the general criticism which is based upon regret for this ceaseless copying, tell us constantly that the artists of the great times copied also, that they were always studying the buildings already erected and trying to improve upon them. That is true; but the buildings they copied, with alterations, with improvements, with enlargements, with refinements, with natural striving for growth, were the buildings of their own time, called forth by the same necessity which controlled them, fitted for the same community, based upon the same well understood method of construction. The familiar comparison and lesson drawn from the modern art of the shipbuilder (for instance) illustrates this. The skilled ship-

builder whittles out his model with an eye on the past and on the present, and he proposes to modify the lines of his own latest partial success or of his rival's endeavor in such a way as to give his new hull more speed, more carrying capacity, more stiffness—whatever may be his immediate object. He never goes back to the ships of the time of Queen Elizabeth with a deliberate intention of building an Elizabethan hull and sparring it and rigging it in an Elizabethan way. No matter now about the causes of this difference; the fact remains, and we are face to face with this curious condition of things, that whereas every important change in building, in the past, has been accompanied by a change in the methods of design, so that even in the times of avowed revival there was seen no attempt to stick to the old way of designing while the new method of construction was adopted; now in the nineteenth century and in what we have seen of the twentieth century our great new systems of building have flourished and developed themselves

without effect as yet upon our methods of design. We still put a simulacrum of a stone wall with stone window casings and pediments and cornices and great springing arches outside of a structure of thin, light, scientifically combined, carefully calculated metal—the appearance of a solid tower supported by a reality of slender props and bars.

The mediæval styles, that is to say, Romanesque in all its forms and Gothic of all epochs, have been copied in the nineteenth century with an accuracy even greater than that used for the classical and neo-classic styles. In all such reproductions the standard of criticism must be the same. Plate LVII shows the great church at Doncaster in Yorkshire, a building erected with singular care and forethought and at great expense, with the deliberate purpose of imitating what is often called the "decorated" style of English Gothic. The architect, and his principal adviser, a gentleman who had given much thought and pains to the study of English Gothic, agreed that the perpen-

dicular style, of the years from 1350 on, had been allowed too great an influence in the Gothic revival of the time (about 1860) and chose the work of the first half of the fourteenth century as their prototype. To this style they were faithful. It is nearly true to say that an imitation so close as to be deceptive would have been the greatest success, in the opinion of the designer and his employers. The main exception to this statement—the main difference avowedly preserved between the modern and an accurate transfer or cast of an ancient building is to be found in the sculpture of the capitals in which a modern realistic study of natural plant forms is evident; and in like manner the design of the font in the near foreground which is not like any old English font, but is an abstract design showing much study of old English metal work, silver altar vessels and the like. Plate LVII also shows the exterior of this interesting building which is very large for an English parish church, the tower being one hundred and seventy



CHURCH OF ST. GEORGE, DONCASTER, YORKS. ENGLAND, INTERIOR.

CHURCH OF ST. GEORGE, DONCASTER, YORKS, ENGLAND, EXTERIOR.
PLATE LVII.

TRINITY CHURCH, BOSTON, MASS.

PLATE LVIII.

feet high and almost exactly equal to the total length.

As there is no architectural style peculiar to the nineteenth century in any of the lands occupied by Europeans, it is inevitable that the greater number of modern buildings should be more or less completely suggested by the fine art of the time when there was a style of interest and of individual character. Very few are the nineteenth century buildings which are absolutely without such suggestion. At the same time there are a certain number in which only a general study of ancient art is visible, and it is of these that our tenth chapter treats.

CHAPTER X

NINETEENTH CENTURY: ORIGINAL DESIGN

The work of Henry Hobson Richardson may be named as a noticeably intelligent attempt to regain the lost excellence of an ancient style without copying it closely. This appreciation has to do only with his buildings of the years from 1875 to a short time before his early death in 1886. He studied deliberately the Romanesque architecture of the middle and south of France, and as the elaborate sculpture of human subject, so common in the churches of that style, would not have been practicable in America in the nineteenth century, he developed, with the assistance of certain American sculptors, a semi-Byzantine system of foliated design which adapted itself well to his arched porticoes and his elaborate interior compositions of woodwork. Other lands than France were visited and

their treasures put to use: thus, the central tower and the general grouping of the masses in his celebrated design, Trinity Church in Boston, Massachusetts (see Plate LVIII), are evidently studied from a Spanish original. This is well shown in the illustration named, which shows the church as Richardson left it. The tower on the extreme left has been replaced by the accessories of the new west porch.

Now in such a design as this we have to separate that which is frankly copied and that which is of independent design. Thus, the inlay of different colored stones, so marked in the apse, and in a simpler way in the transept, on the left of the picture, is taken directly from churches of Auvergne. The question, then, would be whether, the idea of a mosaic on a large scale being once adopted, the design furnished is a good one for the place. Such designs are almost common property: they float around the world and every designer has his mind stored with them: the question is not of originality in combining a

star with some zigzags, but rather of providing a pattern of just the right size and character to fill the given spot, as well as to have an independent beauty of its own. The great central tower, studied probably from the cathedral of Salamanca in Spain, is evidently open to question as to whether it is sufficiently massive in appearance. There is to many persons an appearance as if the stone work were composed of too many and too slight colonnettes, lintels, arches, and the rest, involving the use of a great number of small stones, laid up not in a massive wall but in a slighter and more exposed fashion, not a skeleton, but suggesting the idea of something very open to the weather. The Spanish originals have somewhat the same effect but it is less marked in the old buildings and with them it is not combined with that mosaic of different colored stones which, although the practiced builder knows it to be superficial merely, yet gives to most spectators a feeling as if the wall were not solidly laid up. The building is certainly faulty in

lacking the appearance of ponderosity. Seen through a haze or by dim light it is a noble composition, the forms exquisitely balanced, the central tower perfectly well marking its place and its structure. It is not until the building is seen in a brilliant light and its detailed effect begins to tell upon its general masses that any exception can be taken to its merit as a general central tower. That the lack of solidity in appearance may be the more clearly understood, it is well to compare with the church itself the porch which was built long after Richardson's death, though avowedly according to his general design. This porch, though a small structure, has a massiveness in all its parts, which the church has been said to lack. The sculpture is also especially noteworthy as being full of that mediæval feeling which forced even the carefully modelled human figure, with elaborate drapery, into the service of the architectural design; while still the modelling has that anatomical truth which modern school-taught generations require.

The conclusion is, with regard to this church, that we are free to judge of it as an independent design, once we have cleared away some few doubts of archæological accuracy. Once it is established that the designer has felt at liberty to take a general form of his central tower from impressions received in Spain, while many of the details are taken almost bodily from the heart of France, the rest is to be accepted, as also the adaptation and working-in of the borrowed details, as a design well adapted to the requirements of the building, to its place in an open and uncrowded site where the building stands free on every side, and to its material, a sandstone, not very fine nor very hard. It is one of the best designs in the picturesque fashion which modern times have seen.

A similar piece of bold adaptation to an ancient style is seen in Truro Cathedral (Plate LIX) in Cornwall, begun about 1880. No person who has lived among English cathedrals could ever mistake this building for a design of the Middle Ages; and yet

CATHEDRAL AT TRURO, CORNWALL, ENGLAND.

PLATE LIX.

APARTMENT HOUSE, "ST. ALBAN'S MANSIONS," LONDON.

PLATE LX.

its character as a Gothic structure is perfectly maintained. It is to be judged, then, as an ancient Gothic building is to be judged. One asks whether the system of vaulting with ribs, and a filling or shell of light stone work between the ribs, is supported and resisted in the best and most economical way by the system of buttressing, and whether this system of buttressing without, and the system of vaulting within, are equally expressed in the artistic design. The fact that the modern building cannot be allowed the cost of much architectural sculpture in its exterior, though unfortunate, cannot be urged as a serious defect, in view of the fact that the English mediæval churches have but little sculpture as compared with those of the Continent, their adornment being concentrated more generally upon the West front, or parts of the interior.

If now we try to call to mind some building inspired, on the whole, by classical taste and the classical spirit of design, but showing also independence and a strictly

modern conception, we shall find that the search is not a rewarding one. There are few modern buildings in which the classic orders are used at all, or in which classic details have been carefully studied, without what seems to be a strict adherence to recognized types of classic or neo-classic general design. The Greek who was building oblong temples, very strictly limited to a given number of columns and a given slope of roof, might still group small shrines as they are grouped in the Erectheum; and he, the Greek designer, generally careful of his Orders, may substitute for his columns a row of draped statues with perfect success. The designers of imperial Rome, dealing with dwelling houses, all on one floor, with columned courtyards and covered porticoes surrounding gardens open to the sky, were still capable of building on the side of a cliff and in the Imperial City, too, and producing a house three stories high on one side and one story on the other—handling their semi-Greek and semi-Italian details with

perfect ease and nearly perfect grace, and investing the whole with a consistent scheme of ornament. The modern designer in the classical styles will not do that very often. In the first place, he will have studied only the grandiose buildings of antiquity, the great temples and porticoes with their minutely accurate symmetry of plan: and in the second place, he will have conceived of the modern use of classic forms as being, on the whole, a simple thing, easy to the naturally gifted designer. The one thing which the modern workman in classic styles expects to get from his building is refinement of proportion, reaching on the one side towards dignity and on the other side towards grace. Now, to one who is naturally strong in such things, the obtaining of these beauties of proportion is an easy thing: it is achieved or it is not achieved in the course of a very few hours of preparation and study of the problem. It is hardly conceivable that a modern adept in the classical system of design should think much of detail except as to

the accurate copying of sculpture and of the curvature of mouldings from ancient examples.

In mediæval styles, we moderns study the small town house, the humble parish church, with its squat tower and plain windows without tracery, as well as the great cathedral, typical of the style and embodying its full character. Of classical antiquity there were no such things to study, during the years when the modern feeling for classical art took shape; nor have there been until the present day many opportunities for judging of the smaller and simpler designs. And therefore we take from classical art mainly its colonnades, its stately use of the three great Orders of Greco-Roman antiquity, with a very few of their slighter modifications. Those buildings of the great days of the empire in which no columnar adornment existed, we have hardly learned to respect—we still look upon them as exceptions hardly worthy of the attention of one who would study the great arts of antiquity. Now it appears to one who will

study the past closely and fearlessly, that the Romans themselves were a little overawed by their system of columnar architecture, and were slow to abandon or even modify it during the long centuries of its constant application to the diverse needs of the old Mediterranean world. Still more are we moderns overawed by the columns and entablatures, so that we dare not play with them: and yet, how can you hope to design if you are afraid to play with the members of your composition? The taste of the American communities, our great cities within the borders of the United States, is markedly for that kind of gravity which we associate with the classical styles —with the few large openings, the horizontal cornices, the low-pitched or invisible roofs, the smooth white, or light colored, surfaces of unbroken simplicity, the carefully studied classical colonnade. The taste of similar communities in England is as evidently based upon a long familiarity with the picturesque forms of the Middle Ages and of the Elizabethan and earlier

Jacobean styles, that is to say, of so much of the Renaissance as reached England before the foundation, by Inigo Jones, of the Italian semi-classical style in that country. Similar to this is the feeling in Germany: for it is most surprising to Americans living, as they have done since 1880, in a time of almost complete agreement among the architects as to the unique and solitary importance of Italian neo-classic methods of design, to see the numerous German publications teem with studies of sixteenth century half timbered fronts, of seventeenth century stepped gables and turrets crowned with "extinguishers," and of eighteenth century florid modifications of the rococo style. In France there is an orthodox style, a recognized style: and yet it is in France that the most seriously considered departures from that style have been made.

The difficulty of expressing in words this complication of architectural thought is very great. The English designers are in one sense the most original of all, for they follow less closely in the general arrange-

ments of the mass, or of the street front, the example set by former ages. In Germany, such indifference to what the past has taught is more seldom seen, and when seen, it takes, most generally, an ugly form of unrestrained fancy, guided neither by tradition nor by strong over-ruling good taste. In France, good taste is rather the rule. As in literature, so in all departments of fine art, the fault of the French work is in the desire not to be rash in the way of innovation, and good taste is always ready to instruct its votaries to follow the path marked out by the men who have just passed by in the human procession and who had needs to supply quite like those of the present day.

It will be well to rehearse these conclusions in the immediate presence of special examples. Plate LX is an apartment house in that region of West London which is just northwest of Kensington Gardens. It is not a costly building in proportion to its size; it is not adorned by sculpture except for an unimportant piece above the large arches of the entrance front and slight

adornment of the frontons; it is built of brick with stone moderately used for the purpose of color-contrast, and its architectural ordonnance is limited to the marshalling of a certain number of pilasters supporting the simulacra of entablatures and the reality of very obvious pediments—these, and a tower well enough shaped and placed at the angle. And the point that the student should make at once in looking upon such a building is that it is so decidedly removed from the world of obvious copying. Nothing is copied except a detail here and there. One has the pleasant conviction that not a square yard of space has been sacrificed nor a square foot of possible or desirable window space abandoned for the purpose of archæological verity or the repute of having built something beautiful in a recognized style. So in the case of the building shown in Plate LXI, that planned for the West Ham Institute and built about 1895 in that suburban village which lies just north of "Woolwich Reach" on the Thames. The design is as independent of

WEST HAM INSTITUTE — SUSSEX, ENGLAND.

PLATE LXI.

HOUSE AND BEER-SHOP (ZUM SPATEN) BERLIN, PRUSSIA.
PLATE LXII.

any past style as in the simpler and more commercial building. There is much sculpture, rather carefully designed and cut with great brilliancy. There is a rather free use of pseudo-classic columns and colonnettes; there is a daring combination of larger architectural details, such as gables of cut stone with rounded outline, capped with bold drip moulds, pinnacle-towers wrought into niches with statuary, a porch of entrance with a very boldly projecting hood, well handled, with caryatid figures, a staircase tower with a cut stone attic of great merit, and ventilation towers combined with the roof structure and differentiated finely from the masonry-built forms near them. It is a costly building, a refined and thought-out design; and yet one cannot say that there is anything of the past in it more than this—that it is based upon the spirit and taste of the Renaissance rather than upon that of the classic epoch, or of the mediæval epoch, early or late, or of the Post-Renaissance epoch, beginning in the North about 1650. This relative in-

dependence is what the foreigner sees most strongly in modern English architectural practice.

Now, in German lands, there is a little less freshness of artistic thought; the artist is always in the presence of the great past, in such a way that even his deviations from its spirit are self-conscious in a way; and this feeling it is which drives the daring designer—the man who would be original and who asks us to sympathize with his manly desire to build for the nineteenth century what the nineteenth century needs, not what a former century made for itself—to very strange vagaries. Plate LXII is one of the best of these dashing attempts at novelty. Every part of the wall-surface is occupied with painting in neutral colors, which painting is in some cases reinforced by reliefs in plaster. It is not a polychromatic design, but a design in light and shade wrought into emblematic, armorial, purely decorative, and even representative forms. It is noticeable that the realized painting of human figures and accessories,

so marked a feature of the ground story, with its splendid King Gambrinus at the left, and the Lady Hopfen at the right, stops with the sill-course, and that the rest of the painting is much more abstract and conventional. Apart from the painting, the design is somewhat commonplace in its main masses; though that statement is unfair as it stands, because it was not intended to be seen without the painting, while the details, as of the window jambs and mullions, are very carefully wrought and very interesting. It is only above the eaves that the design becomes commonplace, and even there it is redeemed by the very bold fire wall on each side broken into gable-steps of unusual design.

In this inquiry we are taking smaller buildings as more likely to express the general thought of the community than are those exceptional monuments which form landmarks in history. We are compelled, of course, to select the designs of men who are famous, however unknown they may have been when the buildings we

select were put into shape: but even the work of such renowned architects as Charles Garnier shows and explains the general trend of thought, especially when seen in their earlier tasks. Thus, the building shown in Plate LXIII, the Club-house of the Cercle de la Librairie, which was completed about 1880, shows the exceptional merit (exceptional in modern cities) of the Paris fronts, together with their comparative lack of significance, at least in detail. The entrance on the corner and the round tower forming a vestibule below and an admirable card-room above, are characteristic of Paris streets. Straight from this doorway, and, therefore, diagonally to both the fronts, goes a passageway into a staircase which forms another round tower-like structure. In the upper story, the large room at the left is a billiard room, that on the right, a salon of reception and entertainment, the "conversation room" of the club. All this is perfectly well expressed in the external design: and that credit—the credit of that sort of realism always restrained and always

CLUB HOUSE, CERCLE DE LA LIBRAIRIE. PARIS

PLATE LXIII

BUILDING OF NEW YORK LIFE INSURANCE COMPANY, ST. PAUL, MINNESOTA.

PLATE LXIV.

guided by good taste, is to be given without reserve to the French designers of the long years beginning with 1860. Good taste is visible everywhere, not in an exceptional measure in this building; on the contrary, it is to be thought by a careful student of the street fronts of Paris that there is a relative clumsiness which other and less noticeable buildings have escaped: but there is everywhere the visible presence of thought—of matured study of the problem, and that is a thing so rare in the modern architecture of other lands that we are never brought face to face with the French instances of its active presence without a new thrill of admiration.

In the United States, some of the most thoughtful buildings have been those inspired by the semi-Spanish style of the provinces torn from Mexico in 1848; the missions of California and New Mexico. Inspired by those blessings of a temperate region, a steady warmth, a brilliant sun, they are most assuredly: and yet there is originality, so much as to cause the student

almost to forget the origin of their design in such work of the not very famous past. Such buildings are the hotels built in Saint Augustine about 1885—the Ponce de Leon, in which the architecture of old Spain has been studied more carefully, the Alcazar, where the simpler appliances of Western America are more in evidence.

One of the best things in modern original design is the building shown in plate LXIV. Its treatment is picturesque rather than severe; and a sufficient reason for that treatment is the recognized difficulty of applying the classically simple method of design to one of the modern high and narrow buildings of many stories and of many, similar, window-openings. The walls of the side, on the by-street and on the court, are diminished by the adoption of a roof of abnormally steep pitch with two stories in it. The two gable-walls are broken, as a result of the same device, by the beginning of the slope or step inward of the gable itself. In this way the use of a great many windows all of the same size

is made practicable; the slight differences in design, as where one story has a row of round arches, and the like, are perhaps even more marked than was essential; the monotonous repetition of these openings is prevented from hurting the design by the very picturesqueness of that design, which overcomes their monotony. The treatment of the two gables themselves is a remarkable achievement, securing, as it does, a vivacity which we associate with the Renaissance of the North: while it is still restrained in such a way as not to clash with the extreme refinement of the porch of entrance, which in its general design, as in its sculptured details, has the delicate and subtile quality of the art of Italy a hundred years before.

This is, it appears, the way in which modern men might design; and this is the way in which they might succeed if they were able, more often, to give personal thought to the matter of design. It is obvious, however, that this giving of personal thought is exactly the most difficult

thing which can be proposed to a twentieth century architect. He must do everything else first. He must see that the heating apparatus, the ventilating apparatus, the electrical lighting, the ventilating system, the cooking appliances, which will come in somewhere, the plumbing, which will come in everywhere, and the endless modifications of drainage—he must see that all that is faultless. The owner, or owners, really care about those things—they do not care about the design. Then he must see to it that no time is lost. From the moment when the previous tenants move out and tearing down of the old structure has begun there must not elapse too many weeks before the new tenants may move in. Ten months may be allowed; when every consideration demands two years and a half, or thirty months. And throughout the few weeks before and after the beginning of that ten-months' space, the architect employed will have so very little opportunity to "retire into himself"—to retire at least into his study and lock the door and think

out that design, taken in its artistic sense, that the hours so given are hardly to be reckoned with, at all. Uninterrupted thought is not for the busy architect. The altogether likely sequence of things will be this—that the design is sketched in a drawing-room car and turned over next day to a high-paid subordinate to work out according to the well-known office scheme.

Such traditional ways of doing have proved good in the great days of art: but the nineteenth century was not, and the twentieth century is not as yet certain to be a great day of art in the decorative or artistic sense. It becomes the writer on architecture to treat those two adjectives as synonymous, for in architecture they are synonymous; and the decorative, or in other words, the architectural treatment of a building has grown to be so foreign to our habits, and, from the nature of the case, so difficult (as urged in the last paragraph), that nothing but long-continued and enthusiastic thinking over the scheme will conduce to fine designing.

It is for these reasons that the building of the New York Life Insurance Company at St. Paul has been shown in our final plate. There seems to be evidence there of much and of well applied artistic thought. If a similar instance be sought in the older homes of art, and among more costly structures, the Roman Catholic Cathedral of London, now approaching completion in the district south of Buckingham Palace, may be chosen as such an instance. A few such buildings there are; a few works of art which show that the power of thoughtfully working out a complex design is not wholly lost to the world.

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